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ABSTRACT

This teaching guide on population issues contains 19 activities for students in grades 7-12. The objective is to analyze population issues that have resulted from human population dynamics. In this guide, four categories of activities are included: some are discussion starters, some provide factual data, some focus on thinking skills, and some are simulation games. For example, "Pop Quotes," is one activity designed to spark students' interest in thinking about population issues. In this activity, students make mobiles, write quotes about population on the mobiles, and hang them around the room. In a simulation game, students role play different members of Congress who must vote on an immigration law. "Changing Migration Patterns to the U.S." is a factual data activity that documents migration patterns with the use of charts. Participants then analyze the meaning of the data. In "Population and Group - It All Adds Up," the focus is on thinking skills. This activity is designed to help the student evaluate the role growth plays in the quality of life. Students collect industrial or Chamber of Commerce ads which reflect the desire for growth or reflect the desire to improve the quality of life. Then students question whether the ad encourages growth or improves the quality of life. Each activity contains an introduction, a list of objectives, teaching procedures, follow-up activities, and information on time required and materials needed. This guide includes a list of available materials on population/food topics and a list of organizations that can provide additional information on these topics. (Author/NE)

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TEACHING ABOUT
POPULATION ISSUES

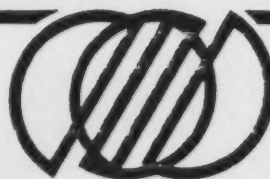
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INTRODUCTION

This volume contains a wide variety of supplementary teaching activities on issues and topics involving population factors. It is not meant to be used as a text or as a complete unit.

Some activities are discussion starters, some provide factual data, some focus on thinking skills, and some are simulation games. All of the activities are for experimental purposes. Hopefully, you will look through them and use the activities that will supplement your attempts to teach about population issues. You can find activities to help teach about crowding, population control, and other population topics that are currently dealt with in junior high and high school classrooms.

The following annotations give you some ideas on where to use the activities. Remember, these are experimental, supplementary activities.

Activity authors and credits are given on the first page of each activity. Master sheets follow each activity immediately after the teacher instructions.

ACTIVITY DESCRIPTIONS

Attitudes Toward Childbearing

This activity focuses on the students' own values and attitudes toward childbearing, attempting to make them more aware of their attitudes.

Mother of the Year

A simulation exercise exploring the values people hold about the role and function of motherhood in society.

Population and Growth--It All Adds Up

Using magazine advertisements, students explore the relationship between population and economic growth.

Changing Migration Patterns to the U.S.

This activity documents migration patterns with the use of charts while participants analyze the meaning of the data.

Immigration Policy--A Simulation

A simulation game in which students role play different members of Congress who must vote on an immigration law.

Population Stabilization

Students rate proposals for showing population growth by their acceptability.

Crowding

Students use magazines to document their perceptions of crowding and its results. A discussion of the choices and the concept of crowding is held to pool students' ideas.

Too many People?

Students are shown slides and asked to judge the pictures as a scene with too many people, not enough people, or just the right amount of people.

Good News, Bad News--Where Do We Stand?

A rating exercise in which students categorize and discuss a series of statements about food and population.

Are People the Problem?

A worksheet activity has students compare GNP data with population data, discussing the relationship between the two kinds of data.

Pop Quotes

Quotes are placed on mobiles and hung around the room. The mobiles are used as a discussion starter and as an evaluation method.

Women and Population: A Simulation

A simulation game dealing with women and their roles.

Don't Tell Me about Planning!

A reading that demonstrates a minority group member's perspective on population control.

Population Control: Where Do You Stand?

Familiarizes students with the complex relationship between population control programs and individual and societal freedoms.

What If? (Roll Over, Beethoven)

What if people lived longer than they do? Students write about hypothetical situations involving age and life span.

Population: To Be or Not to Be a Problem?

The pros and cons of whether or not population growth is a serious problem are discussed.

Yes, No, or Maybe

Students are asked to agree or disagree with different points of view on population growth.

Boomsville--A Film

An animated film documenting the growth of America.

Planet Management Game (A Simulation)

Groups are asked to plan policy on environmental factors for a make-believe planet.

Title: ATTITUDES TOWARD CHILDBEARING*

Introduction: Many decisions regarding family size are influenced by societal pressures and norms. Other factors include the economic circumstances and career attitudes of the prospective parents. This activity is designed to allow an examination of some of the influences that prevail in the decision to bear children. If people recognize the influence of societal pressures and the need to examine parental vs. career roles, they will be better prepared to make real choices about their own family size.

This activity is designed to guide individuals in their own expectations regarding family size in the context of the perception of what the society expects. By identifying perceptions that are not often articulated, they will be more aware of factors pressuring their own decisions.

Utilizing an individual survey dealing with expectations of marriage relationships and childbearing, the group is directed to examine reasons for the expectations that surface in a composite of the answers of individual group members. The activity is then focused on some of the reasons people have children through the use of a scenario about one couple's plans. The activity culminates with a values discussion of the reasons people have children.

Objectives:

To suggest various personal actions through which students can influence population changes.

To identify factors in American society that influence the types of population-related decisions a person makes.

To identify students' own long- and short-range values and preferences as they relate to population issues.

To suggest several ways of altering existing population trends so that the outcomes are consistent with one's own values and those of society.

To assimilate data from individual responses into a useful composite form.

Time: One class period

Materials: Individual copies of "Survey: Marriage & Childbearing," and "Case Study: Are Boys Better?"; Chalkboard or overhead projector and transparency of the survey.

Procedure:

1. Each student should be given a copy of "Survey: Marriage and Childbearing" to complete, preferably prior to the beginning of the session.

*Adapted by Richard Schweissing.

2. The session itself should be opened with some basic introduction to the ideas that many of our attitudes regarding marriage and childbearing are the product of the society in which we live. Therefore, the purpose of the session is to identify those attitudes commonly held by the group and then look for the reasons why they exist. The group should be urged to approach the discussion with an open mind, prepared to accept the possibility that some commonly accepted values may no longer hold any valid purpose for society.
3. (10 minutes.) Tabulate the results of the survey. This can be done in a number of ways. If the survey was taken early, the papers may be collected and tabulated in advance. If they are tabulated at the beginning of the class session, it can be done by a show of hands. Unless the group is fairly open, it may be wise to exchange papers randomly so anonymity may be maintained. Be sure that male and female responses are tabulated separately.
4. (20 minutes.) With the group, identify those responses that are similar. It is very likely that many of the answers will reflect common plans for marriage and childbearing. Call the attention of the group to differences (if they exist) between male and female responses. After common answers and differences based on sex have been defined, ask the group to explain reasons for those views that are held in common and see if explanations can be offered for the differences.

Mentioned or not, tradition will be reflected in many answers. Marriage age for the majority falls within a common age for the whole society. Some probing might reveal that individual expectations reflect the actual experience of the parents. Family size also follows some common patterns. However, trends here may be away from the pattern of previous generations.

Differences expressed between males and females may be reflected in the desire of more women to have careers. It may also reflect the economic perceptions held by many of the need for both members of a marriage to work.

Another area to consider is the correlation between the expectations for a woman to work and the number of children expected. If the results in fact warrant such a response, it would be important to raise the point of expendability of children in a modern industrial society. The group may explore the growing attitudes related to the idea that children are now more a product of choice than of either need or chance.
5. (15 minutes.) To complete the discussion, the group should focus some attention on the reasons people have children. A springboard for this phase of the discussion is the "Case Study: Are Boys Better?" Questions to raise following the case study:
 - a. Is Paul and Freda's reason for wanting a boy a common one? Is it valid?
 - b. What are some other reasons for wanting children, or one of a particular sex?
 - c. Are there any alternatives to these goals?
6. Once the discussion is over, a repeat of the original survey will show what, if any, attitudes changed because of the discussion.

SURVEY: MARRIAGE AND CHILDBEARING

1. Female _____ Male _____
2. Do you plan to marry? Yes _____ No _____
3. If yes, at what age do you plan to marry? Age _____
4. If female and you plan to marry, do you plan to work after marriage? Yes _____ No _____
5. If male and you plan to marry, would you like your wife to work after marriage? Yes _____ No _____
6. If female how long will you work?
If male, how long should your wife work after marriage? Years _____
7. If you plan to have children, at what age would you expect to have your first child? Age _____
8. How many children do you want to have? No. _____
9. How many children do you expect to have? No. _____
10. At what age would you expect to complete your childbearing? Age _____

Do you agree or disagree with the following statements:

Agree Disagree

11. Part of the fulfillment of everyone's life is in marriage. _____
12. Part of the fulfillment of everyone's life is in having children. _____
13. A childless or a single-child family may have as fulfilling experiences as other families. _____
14. If a couple has the number of children they want, but all are of one sex, they should keep trying for a baby of the other sex. _____
15. All American couples should have two children in the interests of stopping population growth. _____
16. Woman's place is in the home. _____
17. After marriage and childrearing, women should continue working. _____
18. Because most women marry and leave work when children are born, minor forms of job and pay discrimination must be expected. _____
19. Unmarried women who are in their 40's and 50's are lonelier than unmarried men of the same age. _____

From OPTIONS: A Study Guide to Population and the American Future, The Population Reference Bureau, 1973.

Case Study: Are Boys Better?

Paul and Freda Wilson are a young married couple in their early twenties. They have two little girls aged four and six. They have read in news magazines that if the present world population growth of 2 percent continues for another 650 years, there will be one person for every square foot of surface on the entire earth. Paul and Freda have always supported the "zero population growth" idea. They also realize that to reach zero population growth families, on the average, would have two children.

Paul and Freda also want a son to carry on the "Wilson tradition" on the football field at Calumet College in a nearby town where Paul and his father were star halfbacks in their college days.

Questions:

1. Why do you think Paul and Freda want a son so badly?
2. Do you think it really matters what they decide? Why or why not?
3. What do they need to consider in making their decision?
4. Can you think of one sure way of having a boy in the family without Freda bearing another baby?
5. What do you think Paul and Freda should do? Why?

Photo by Ken Heyman



Title: MOTHER OF THE YEAR*

Introduction: As pressures of inadequate quantities of food and increasing population on a finite planet continue to build, the acceptability of large families becomes less popular. Industrialized nations have emerged with a family pattern that is much smaller because children no longer perform a contributing economic function as is the case in predominantly underdeveloped nations. Hence, children become a matter of choice and are an economic liability to their parents. Each of these factors has contributed to a general public awareness of the need to question the historical sex roles of both men and women. But it is more important for women, since women are no longer easily left in the home, to find fulfillment in rearing children and maintaining a household, carrying out day-long routine chores. Both the opportunity and the need to find personal fulfillment in other careers have converged to start the process of change in viewing the two sexes with greater equality.

This activity is designed to guide groups in the discussion of values which have to be questioned in the context of the changes which are taking place by using the familiar age-old format of a Mother of the Year contest. The candidates, however, are a mixture of the traditionally expected candidates and women who have adopted less conventional roles.

Change becomes the major concept of consideration, as these candidates represent both traditional and newer roles of women. The group must decide how much change should be advocated, or would be acceptable.

Objectives:

To explain some of the trends reflected in the changing roles of women and begin to articulate personal attitudes and feelings about these changes.

To suggest other roles women are adopting that are not reflected by the candidates presented in the activity.

To discuss some of the attitudes that influence family size.

Time: One class period

Materials: Duplicated copies of the "Mother of the Year" sheet for each student.

Procedure:

1. Pass out the Contest sheets, and divide the group into small groups of five or six. Read the instructions with the group as given at the beginning of the Contest sheet. Have the groups deliberate on their selection of a candidate for no longer than 15 minutes.
2. (10 minutes.) Have a spokesperson from each group which reached a unanimous decision announce their choice, and the reasons for their selection. This may take the form of some campaign-style hilarity, and this can be allowed.

*Adapted from Equilibrium.

3. (10 minutes.) Once finalists by group have been announced, any person may be allowed to speak on behalf of, or against, a particular candidate. Although not to be encouraged, a person who strongly favors a candidate not previously nominated may announce at this time the nomination of the particular candidate. After sufficient time for campaigning has been allowed, a vote should be taken and the winner announced.
4. (20 minutes.) Debrief the experience of the group, using the questions at the end of the Contest sheet.

Further Suggestions:

Let the group draw their own profiles of the ideal "Mother of the Year" or "Woman of the Year." Also, try writing profiles of the ideal "Father of the Year," taking into consideration how the man's role must be altered to complement the perceptions and roles of the "Ideal Mother" or "Ideal Woman."

MOTHER OF THE YEAR CONTEST



The purpose of this activity is to stimulate discussion of traditional pronatalist attitudes and the new awareness of men's and women's roles.

You have been selected to serve on the National Selection Committee (composed of several subcommittees of 6 persons each) for the OUTSTANDING MOTHER OF THE YEAR Contest. Your mission, should you decide to accept it, is to pick ONE from the six regional winners whose qualifications are described below. The selection must be the UNANIMOUS decision of the group.

A spokesperson for your committee will be asked to give the reasons each candidate was selected or rejected.

CANDIDATES

MS. ANN SEMMLER, San Francisco, CA

Sponsor: Association for Voluntary Sterilization
age 29—husband is sales representative for IBM—won court case establishing the right to be sterilized regardless of number of children—adopted her two children— a boy four and a girl two—graduated Phi Beta Kappa from Vassar—teaches a course on Women's Rights at the University of California, Berkeley—president of local chapter of NOW—member of Zero Population Growth and Sierra Club—hobby: gourmet cooking

MRS. JUNE HUNTER, Boise, ID

Sponsor: American Association of University Women, Greater Boise Branch
age 37—husband manages Montgomery Ward Store in Boise—mother of 3 boys, all honor students in high school and junior high—BS, Idaho State University; MS, University of Idaho—elementary school teacher, 10 years experience—past president Idaho Education Association—presently programming a new math series for slow learners—led push for equal pay for equal work for women teachers and State employees—Democratic candidate for Idaho House 1974

MRS. JEAN FIXON, Cedar Bluffs, NE

Sponsors: Lincoln Kiwanis Club and Daughters of the Pioneers, Nebraska Chapter
age 72—mother of eleven, grandmother of 73, great-grandmother of 29—resides on farm, built 160 acre homestead into 2000 acre dairy and fruit farm—one of the original homesteaders in Nebraska, she and late husband built sod hut as their first home—Nebraskan "Mother of the Year" in 1954 and again in 1969—stated in recent newspaper interview "Children are the spice of life and the salt of the earth"

MS. JOANN GREEN, Chicago, IL

Sponsor: Cook County ZPG
age 32—unmarried—one son, four years old—lives with

environmental lawyer, past 3 years—MA from the University of Chicago in Sociology, Magna Cum Laude—organized Chicago chapter of NOW—presently writing book "The Future of Women in Eliciting Corporate Responsibility"—refused honorary doctorate from Antioch College as irrelevant—organized a day care center which involves both men and women and provides family-like relationships for the children

MRS. BETTY BAKER, Syracuse, NY

Sponsor: Syracuse Chamber of Commerce—age 49—immigrated from England in 1947—husband is prominent corporation lawyer—mother of five girls and three boys, five are graduates of CCNY, three in high school; one son has doctorate in nuclear physics from MIT, one is in cancer research—graduated from high school at age 40—same class as second daughter—Girl Scout leader since 1953—Matron of Eastern Star—Republican precinct worker—Ruling Elder, Episcopal Church—winner of Syracuse Women's Club's Outstanding Woman of the Year, 1959

MRS. JAYNE WATSON, Atlanta, GA

Sponsor: Retail Clerks Union, AFL-CIO
age 52—migrated from Montford, AL after husband died five years ago—mother of five plus two adopted children—three sons have been killed in service—last death in Vietnam War—employed as a clerk in a chain supermarket—does considerable volunteer work at Community Action Center—member of NAACP for 15 years—not in leadership role—winner of Montford County Fair Cooking Contest in 5 of 8 years she entered

1. What qualities did you consider most important in your selection? Which did you consider weaknesses? Why?

2. Would your selection be the same if you were asked to choose one of these women to be your own mother? your own role in life (if female) or your wife (if male)?

3. What trends and issues influenced your selection? Would your choice be the same if you were older? younger?

4. What is an ideal family size? Take a poll of your classroom and figure the average number of children desired. Compare this to the average number of children per family needed because of the U.S. current age distribution/immigration policy to achieve ZPG (1.4).

5. What attitudes and trends in our society encourage continued population growth? Do these attitudes have any other effects?

(Source: Developed by participants of the 1971 NSF Summer Institute, U. of Cincinnati.)

"A forgetful demographer may lose his census."

Title: POPULATION GROWTH--IT ALL ADDS UP*

Introduction: Many industries and most communities are built with the assumption that there will be ever-increasing populations; that growth is vital to survival. The purpose of this activity is to identify the ways industry encourages population growth and to examine the ultimate utility of such motivation. The ultimate result of an exercise of this sort is to reexamine the values expressed by the cliches, "Growth Is Good" and "More Is Better."

This activity is designed to encourage the learner to evaluate the perceptions/misperceptions he may have about the role growth plays in influencing the quality of life.

Briefly, this activity is an inquiry lesson in which the group members collect industrial or Chamber of Commerce ads which reflect the desire for growth or to improve the quality of life. The collection, displayed around the room, will form the basis for discussion which will revolve around these basic questions: 1. How does the ad encourage growth? 2. Does the product really improve the quality of life? 3. Could the same results be achieved without growth?

Objectives:

To identify the possible effects of changes in population growth rates on the demand for resources, the demand for social services, environmental stress, and the economic viability of the area.

To distinguish between empirical and value statements.

To recognize that quality of life and quantity of life are separate and distinct concepts that may or may not be compatible.

Time: One class period, plus advance collection of ads by group members

Materials: None, unless the teacher chooses to provide a selection of magazines and have the group find ads during the session. Sample ads are attached.

Procedure:

1. Ask the group members to collect ads which reflect in some way the concept of growth. This may be an ad announcing the growth of a company into some new region or product. It may be an ad that encourages growth by the product it is selling. It may be a promotional ad encouraging movement into an area by industry.
2. Arrange the ads on the wall around the room so the group can see them. Allow the group 5-10 minutes to wander about the room to become familiar with the ads.

*Developed by Richard Schweissing.

3. (10 minutes.) Begin the discussion with the general question, How do ads encourage growth? Some responses may be:
 - a. Appeals to better quality of living (housing ads)
 - b. Appeals with tax incentives (CC ads for industry)
 - c. Appeals to the right location (access to resources, markets, etc.)
4. (20 minutes.) Once the kinds of appeals have been identified, the focus should shift to the general question: Does the product really improve the quality of life? A variety of more specific questions should be used to get at this question:
 - a. How does the product limit the quality of life? (Look at the negative side.) For example, a new subdivision of quality homes may appear to be an improvement of the surface, but consideration should be given to such things as the additional demands on resources.
 - b. What other growth factors must also be considered? An ad to invite industry into an area also implies needs for community planning, support services, etc.
 - c. What, specifically, is being improved? Often, this becomes a difficult answer to ferret out of a glamour ad.
5. A final question to be raised in this discussion should be, Could the same results be achieved without the growth that is being advocated? Answers to this question will require some creative thinking on the part of individuals in the group. The solutions they are now looking for have not been extensively explored. However, the whole growth scheme must be assessed carefully in a world that is becoming acutely aware of its finite resources and continued population growth rates.

Further Suggestions:

Students may pursue a similar activity to see if they can identify ads that reflect the desire to limit growth. They may also probe other sources to learn what is being done or suggested in these areas. Talking with local groups may also produce some suggestions.

Resources. Energy. Living. Location.

Help cut business costs in UTAH!

Utah, with Salt Lake City as its hub, has been characterized many ways:



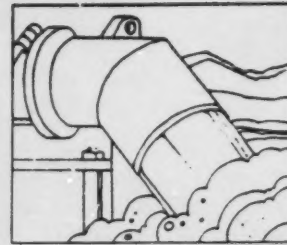
America's Treasure House

Utah has vast natural resources, including 200 useful minerals, more than any comparable area in the world



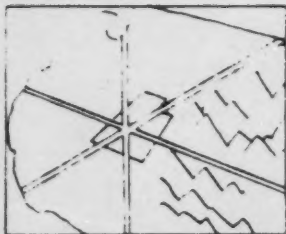
Energy Capital of America

Vast deposits of coal, oil shale, oil, oil sands, uranium, along with hydroelectric power and promising geothermal explorations, mark Utah as a major contributor to America's critical needs.



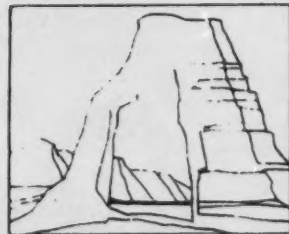
Chemical Breadbasket

An estimated five billion tons of chemicals in the brines of Great Salt Lake are just starting to be tapped.



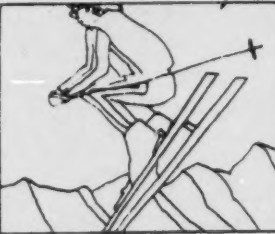
Crossroads of West

A natural gateway through the Rockies has made Utah the hub for ground transportation to and from the great West, the best SINGLE distribution point for the 33-million Western market



Center of Scenic America

Five national parks, 14 state parks, three national monuments, three national forests and more than 3,000 miles of beautiful lake shoreline



Greatest Snow on Earth

Featuring unsurpassed skiing, an unusually long season, and fairly short lift lines at a dozen excellent ski areas in great four-season playground.

Actually, these are facts more than slogans, and they tell only a part of the story of why Utah is a great place to live and work or locate a business.

If you are seeking a site for a new plant, regional office, or corporate office, write for more information to:

Utah Industrial Promotion Division
Dept. NB-SS-1
#2 Arrow Press Square
Salt Lake City, Utah 84101

Win the West from



- the heart of the 33 million Western market.

Why Puerto Rico is the most profitable of Omark Industries' 14 plant sites in 5 countries

Here are the reasons why this Oregon metals fabricator's plant in Puerto Rico is their leading profit maker worldwide.

Send in the coupon below to discover what these same reasons can mean to you and your company's profits.

OMARK INDUSTRIES, a major manufacturer of cutting chain, hydraulic loaders and industrial fasteners, started in Puerto Rico in 1965 with a cutting-chain plant in Bayamón.

Last year, this single 45,000-sq.-ft. facility earned over half of the company's total after-tax profits. Here are some of the reasons why.

100% tax exemption

Though Puerto Rico is an integral part of the U.S., there are no federal taxes. What's more, Puerto Rico offers qualified manufacturers like Omark 100% exemption from all local taxes for up to 30 years. In Puerto Rico, the profit you make is the profit you keep.

In 1974, this combination of tax exemptions alone contributed \$2,500,000 to Omark's net income of \$9.8 million.

51% of profits

The income from the sale of products made in the Puerto Rican plant, combined with the tax benefit, contributed a total of \$5 million—an astounding 51% of the company's entire profits worldwide.

In 1965, Omark sent 12 workers from Puerto Rico to the company's Portland, Oregon, headquarters to be trained as plant foremen. They worked hard and learned fast.

All personnel Puerto Rican

These men returned to start up the Bayamón plant together with Omark supervisors from the U.S. mainland. Today, every one of the 230 people in that plant, management and labor, is Puerto Rican.

Their record of productivity and willingness to work hard speaks for itself. Between 1970 and 1974, output



Omark's 230-man Bayamón plant is staffed entirely by Puerto Ricans, workers and management.

from the Bayamón facility almost doubled without hiring any new employees.

3 hours to New York

About 40% of the saw chain made by Omark in Puerto Rico is shipped to the U.S. mainland. Air freight reaches Miami in only two hours, New York in three hours. Puerto Rico's modern fleet of container and trailer ships make weekend deliveries to New York in only 84 hours.

No plant location on the island is more than three hours from a major port over Puerto Rico's 6,500-mile network of paved roads. San Juan alone is served by 30 shipping lines and 15 scheduled airlines.

Government cooperation

Puerto Rico's Economic Development Administration (Fomento) helped Omark and is ready to help you. How? By smoothing your way with government agencies. By helping you select and train workers. By doing what needs to be done to expedite plant start-up.

The Puerto Rico Industrial Development Co. (PRIDCO) will give you the benefit of its know-how in the selection and preparation of a plant site. They can show you their "shopping list" of choice industrial locations, with over 1,000,000 sq. ft. of factory space ready for immediate occupancy.

Many companies expanding

If you need to expand but are hesitant in the present uncertain economy, consider this—Puerto Rico's unique combination of incentives continues

to attract new manufacturers and to encourage many already on the island to expand operations there.

Omark is one of those who are expanding. The company plans to invest \$2 million to expand its Bayamón facility and has applied for a 25-year tax exemption for a new 35,000-sq.-ft. plant in Cidra in central Puerto Rico.

Send for profit booklet

Omark is only one of the many U.S. manufacturers who have made more profits in Puerto Rico than in any other industrial location.

Get the full story on how Puerto Rico manages to continue to attract industry even in the midst of economic uncertainty. Send this coupon today for our new 20-page booklet.

Commonwealth of Puerto Rico
Economic Development Administration
Dept. NB-1, 1290 Ave. of the Americas
New York, N.Y. 10019

Please send me your free new booklet, **PUERTO RICO—PROFIT ISLAND, U.S.A.**, with up-to-date facts and figures which explain how, even in today's uncertain economy, Puerto Rico provides manufacturers a profitable climate unmatched anywhere.

The products I might be interested in manufacturing in Puerto Rico are:

Name _____

Title _____

Company _____

Address _____

City _____

State _____ Zip _____

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Title: CHANGING PATTERNS OF MIGRATION TO THE UNITED STATES*

Introduction: In order to fully understand population growth patterns, it is essential to consider the effect of migration on these patterns. Control of population or even population planning will never be successful if it does not account for the influx or exodus of people by migration. This factor has obviously greater influence in some locales than others. The U.S. is a case where major immigration patterns appear throughout its history. While immigration is not proportionately as great today as earlier in our history, lower birth rates mean that it still has a significant impact on the population growth (see background notes for the teacher). This activity, then, is designed to assist the learner in looking at one aspect of this topic: what can be learned about the kind of person who is entering the U.S.?

This kind of activity is especially good for helping learners develop the concepts of interdependence and perception. Interdependence will become apparent as they compare the areas that have shown sharp increases in immigration with the preference categories under the 1965 law. The perception individuals have of immigrants may change as a result of this activity--at least the individuals will be able to test their perception of immigrants.

This activity is an inquiry lesson using immigration data from the years 1960, 1965, 1970, and 1978, and information on the U.S. Immigration and Naturalization Act of 1965 as the information base. The group will identify the important shifts in immigration patterns and attempt to arrive at conclusions about how population growth will be affected by present migration patterns.

Background Information for the Teacher: Historically, immigration has contributed significantly to the growth and development of the United States. Immigrants now enter this country at a rate of about 400,000 per year. The relative importance of immigration as a component of population growth has increased greatly in the past decade as declining birth rates diminish the level of natural increase.

If immigration were to remain at 400,000 per year and all families were to have an average of two children, then immigrants arriving between 1970 and 2000 plus their descendants, would account for almost a quarter of the total population increase for that period. Once zero growth is reached, the size of the population would ultimately be about 8 percent larger than if there were no international migration.

Immigration affects not only the growth of the population, but also its distribution. Immigrants tend to settle in the largest cities. Assuming the two-child growth rate, immigrants will contribute about 23 percent of the projected population growth within fixed metropolitan boundaries between 1970 and 2000.

Under the U.S. Immigration and Naturalization Act of 1965, "Preference" categories were established for classifying applicants for immigration. Applicants are classified according to relationships with persons in the U.S. or job skills. Preference categories include:

*Developed by Richard Schweissing. Adapted from Options.

1. Unmarried sons or daughters of U.S. citizens
2. Spouses of resident aliens
3. People with certain professions or skills
4. Married sons and daughters of U.S. citizens
5. Brothers and sisters of U.S. citizens
6. Workers in certain categories that are in short supply in the United States
7. Refugees

Spouses and children of preference applicants are entitled to the same preference if accompanying such persons.

Objectives:

To identify some of the possible effects of changes in the composition of a population on (a) the economic system and (b) the social system.

To read a table containing population information.

To assess the importance of migration on population growth.

To distinguish between empirical and value statements.

To identify one's own values and preferences as they relate to population growth by migration.

Time: One-half to one class period (30-50 minutes)

Materials: Copies of preference categories of 1965 Immigration Law from Background Information section (may be written on chalkboard), and U.S. Census Bureau table on immigration.

Procedure:

1. (5 minutes.) Begin the activity by asking the students to identify what changes took place in migration patterns between 1960 and 1978, using the Census Bureau table. Important items to note:
 - a. Decline of immigrants from Europe with increasing immigration
 - b. Nearly sixfold growth of immigration from Asia.
 - c. Less dramatic, but sharp, growth of immigration from other areas
2. (15 minutes.) Discuss with the students the impact on our population, particularly urban population, given present birth rates (use background notes), then ask students if they can draw conclusions about what impact such people might have on our society. Possible suggestions:
 - a. Greater influence of Asian cultures on American life
 - b. Greater U.S. interest in Asia, with more public orientation towards Asia
 - c. Assumptions may be made about influences on labor market, growth of urban slums, etc. based on perceptions of immigrants being unskilled, incapable of dealing successfully with the American system due to language barriers, etc.

3. (15 minutes.) Distribute Preference Categories of 1965 Immigration Act copies. Ask the students to look again at the Census Bureau table and see if the new information might change their reasons for the shift in migration patterns or the kind of people who make up the bulk of migration. Conclusions should now include:
 - a. People coming to the U.S. reflect our military involvement in Asia.
 - b. Skilled labor and professionals will be more quickly assimilated into our society than may have been originally expected. This could mean a positive rather than the possibly anticipated negative impact on our economy.
 - c. Attempts are made to limit immigration of those who will compete for scarce jobs.
 - d. Relatives of citizens are likely to receive more successful orientation to America and thus assimilate into society more easily than others.
4. Summarize final views of immigrants. The final concluding discussion is likely to end on a more positive note about the caliber of immigrants coming to the U.S. given the two sequences above. This will now allow a more rational discussion of the impact of migration on population growth. Students should now be able to consider it as a growth pattern free of misperceptions in a way that birth is viewed as a growth pattern.

Final Resources and Suggestions:

Developing a rational immigration policy could be the next step for the group if the activity deals with the problems inherent in dealing with diverse interest groups in the U.S. A role-play designed to demonstrate these problems is included in the packet.

U.S. IMMIGRANTS, BY REGION OF BIRTH, 1960-1978*

	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1978</u>
All Countries	265,398	296,697	373,326	601,442
Europe	139,670	114,329	118,106	73,198
Asia	24,071	19,778	92,816	249,776
North America	85,075	126,729	129,114	220,778
South America	13,048	30,962	21,973	41,764
Africa	2,319	3,383	8,115	11,524
Oceania	912	1,066	2,280	4,402
Other Countries	303	450	922	--

*U.S. Bureau of the Census, Statistical Abstract of the United States 1971 (1971), chart 133, p. 9; 1978 Statistical Yearbook of the Immigration and Naturalization Service, U.S. Department of Justice, Table 6, p.8.

Title: IMMIGRATION POLICY--A SIMULATION*

Introduction: Being aware of an issue and developing constructive policy about the issue are two separate functions. Once students have completed some appropriate activities to learn about the impact of migration on population growth, it is important that they consider what desirable policies for migration might be. The activity focuses on policy making for immigration to the U.S. It should be recognized at the outset that this is only one of many issues that are raised by migration. Other issues, in some instances more serious, are migrations within a country, such as from rural to urban centers or urban to suburban centers, and emigrations from a country. However, since historically one means of reducing population density has been emigration and since the U.S. has been a target for many emigrants, U.S. immigration policy carries important repercussions throughout the world. This policy development activity is intended to be conducted in an atmosphere that would be realistic--a Senate Subcommittee. During the debriefing, students will look at the implications of their decision for the rest of the world as well as the U.S., in order to better understand the impact of migration patterns on population growth.

This activity is especially good for helping students develop several concepts. Power and Authority will be demonstrated by the kinds of arguments used in influencing decisions as well as pointing out the persons who actually make the decision. Conflict between competing interest groups will also be a part of the exercise and attempts will have to be made to achieve some conflict resolution. Different perceptions and misperceptions will be expressed and it will be the responsibility of first the Subcommittee and then the entire group in the debriefing to identify what these are.

This activity is a role-play in which some students adopt the roles of Senators with different vested interests acting as a Subcommittee holding hearings on a new law limiting immigration to the U.S. Other members will represent a variety of interest groups which will testify before the Subcommittee on their respective views on the proposed law.

Background Notes for the Teacher: The extent of background that must be devoted to this introduction depends on what has been previously done to prepare the group for the activity. Successful participation in the activity requires some knowledge of impact of immigration on population growth rates in the U.S. and some awareness of the fact that there are different views within the U.S. regarding the desirability of such growth. This latter point will be a major focus in the exercise and acceptance of the reality of the diversity is necessary if it is going to be successful.

Objectives:

To discuss several arguments for and against immigration to the U.S.

To identify some of the effects of immigration on our economic and social system.

To distinguish between empirical and value statements.

*Developed by Richard Schweissing. Adapted from Options.

To identify one's own values and preferences as they relate to population growth by migration.

To suggest some political actions through which a person can consciously affect population trends as they relate to immigration.

Time: 3-5 hours

Materials: Room that can be set up in a format for a hearing, i.e., Senators at a table across the front. Desks where the person or persons testifying can sit and confer with associates. Seating behind the witnesses for the general audience. Role descriptions for each Senator and Interest Group.

Procedure:

1. (5 minutes.) Explain to the group that they will be involved for the next few days in a role-play activity in which they will be making a decision on the numbers of immigrants that should be allowed to come to the United States. Explain briefly that the role-play involves formation of a Senate Subcommittee which will hold hearings on a bill to limit immigration to 200,000 annually (students should be reminded that this would be $\frac{1}{2}$ of present immigration). Explain also that the other members of the group will be members of interest groups that will testify before the Subcommittee.
2. (10 minutes.) Roles should be assigned. The assignment of the roles will depend on the teacher's knowledge of the group. Younger groups will need to be assigned more carefully to assure one or more strong individuals in each interest group and a balance of adequate members on the Subcommittee. Many persons will be more successful if they are allowed to represent a view they already support strongly and in more immature individuals, this will be essential. A more mature person may be able to handle a view he does not support and may benefit from the experience. With the assignment of roles, each Senator and interest group should be given a role description card.
3. (1-2 hours.) Ask each person to read his role card and then make the following assignments:
 - a. The Senate Subcommittee should become familiar with the views and interests of each member and on that basis elect a chairman (if the group is somewhat immature, one of the neutral Senators should be appointed by the leader). The committee should then determine questions they will want to ask each witness, and the order the interest groups will present their testimony (again, it may be important for the teacher to assign the order if the group is younger). It should be emphasized that this does not prevent them from adding other questions as the testimony develops, but it merely provides a starting point. If two days are to be allotted for the preparation, individual members may want to research their positions for a day before meeting to establish a list of questions.

- b. Each interest group should prepare the basic points it wants to present to the Subcommittee. Tell them that they each will be allowed 3-5 minutes to present their basic position prior to any questioning. If two days are to be allotted for preparation, plans should be made for them to have access to resources at least the first day to research arguments for their position.
4. (1-2 hours.) The Hearings: Set up the room in the format previously described for the hearings. The chairman should announce the order that presentations will be made and call for the first interest group. The group will announce who they wish to be their witnesses. After the opening statement by the witness, the Subcommittee members may ask questions in any order by seeking recognition from the chairman. It would be advisable to place time limits on each interest group. Eight minutes if this is to be a one-day hearing, 15-20 minutes if two days are spent.
5. The Vote: At the conclusion of the hearings, at least 10 minutes should be left in the session for the Subcommittee to confer and vote on acceptance, revision, or rejection of the proposed law. A final decision must be reached.
6. Debriefing: A full period (one hour) should be devoted to the debriefing. Initial questions should deal with "feeling" levels if this pressure valve needs to be released. This can be done with the following questions:
 - a. How did you feel about answering questions from hostile (or friendly) questioners? Were the questioners fair?
 - b. How did you feel about attacks on your views by other groups? Were they fair in how they depicted your views?
 - c. How did you feel about the final decision?

This line of questions will raise substantive points that then should be followed up. Some suggestions:

- a. What kinds of arguments seemed to have the greatest effect on the decision--factual or emotional?
- b. Which views were the most difficult to support?
- c. Who changed opinions during the hearings? Why?
- d. How many groups were satisfied with the results? Why?

The final phase of questions should look at results. Some suggestions:

- a. Who in the U.S. will benefit from the decision (consider jobs, ethnic groups, etc.)? How?
- b. Who in the U.S. will be hurt by the decision? How?
- c. Given the discussion of the above two questions, did the Senators make a realistic choice or an idealistic choice? Why?
- d. How will the other nations react? Why? Eventually direct discussion to those nations which send the largest numbers of immigrants to the U.S.

Student Materials:

- Senator A: Represents New Mexico. Is a second-generation American.
- Senator B: Represents California and considers farm owners to be his most important constituents.
- Senator C: Represents Oklahoma. Has little influence from immigration, positively or negatively, in his state.
- Senator D: Represents New Jersey. Campaign platform included a strong plank on Zero Population Growth.
- Senator E: Represents Florida. Views immigrants from the perspective of the negative effect the heavy Cuban refugee influx had on his state's economy.
- Senator F: Represents New York. Feels the heavy impact of ethnic votes in his campaigns. Also, deplores the slum conditions which he feels are aggravated by unskilled immigration.

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From OPTIONS: A STUDY GUIDE TO POPULATION AND THE AMERICAN FUTURE,
Population Reference Bureau, 1973.

Ask students to simulate a hearing of the Senate Subcommittee on Immigration and Naturalization on Senate Bill 0000 that would establish a worldwide ceiling of 200,000 immigrants to the United States annually. Assign students to roles of Senate Subcommittee members and representatives of interest groups. Use the positions of the following interest groups:

Federal and State Labor Departments. Some of the serious economic and social problems in the United States may be traced to legal immigration. We must ensure that immigrants do not compete with indigenous labor, particularly in times and places of severe unemployment. Since immigrants often have relatively high education and skills, there is incentive for employers and institutions to **favor** them. This obviously works to the disadvantage particularly of minority groups and **women**, who have traditionally been discriminated against.

Our present flow of immigrants can hide the need for developing domestic talents. Without the availability of foreign-trained doctors, for example, our own medical schools would have to provide training opportunities for more Americans—particularly minorities and women.

Political Refugees. The United States prides itself on being a nation open to the politically oppressed people of the world. Because refugee situations cannot be anticipated, flexibility is the most important factor in immigration policy. We could not have anticipated the flow of anti-Castro Cuban refugees, for example. The Cuban Airlift since 1965 has brought almost 200,000 Cubans to our land. And according to *The New York Times* entry into the United States is being sought for 20,000 Cubans presently exiled in Spain.¹ How can we turn our backs on these people by imposing stricter quota systems? We must have unrestricted entry for persons fleeing from any country for reasons of race, religion, nationality, or political opinion.

No-Growth Supporters. If we agree that it is important to reach a non-growing population by voluntary means in the United States, then it is time for a critical reevaluation of our immigration policy. Since American families reached a replacement level of fertility in 1972, immigration now accounts for anywhere from 20 percent to 35 percent [legal and illegal immigrants] of our annual population increase.

While we speak of the right to a **chance** for self-betterment and America's responsibility to extend this opportunity to others outside our borders, we must weigh this against the right of **each** U.S. citizen to a high quality of life and the duty of U.S. governmental policy to protect this right.

International Community. Our humanitarian responsibilities to the international community require consideration of matters beyond national demographic questions. To think of what's beneficial for only those legally residing within our own national borders is shortsighted.

Moreover, our nation's history repeatedly reveals the outstanding contributions of immigrants. They have left an indelible mark on American industrial development, art, and scholarship. Immigrants today are contributing in equally significant ways, and we all benefit from the diversity of race, religion, and nationality brought into our evolving American culture.

Farm Workers and Unions. Estimates place the number of illegal aliens currently in the United States between 1 and 2 million. Most are men seeking employment and about eight out of ten illegal aliens found are Mexicans. The influx of illegal aliens across the Mexican border has increased the difficulty of organizing labor in this region. These workers cannot risk discovery of their unlawful status by complaining or organizing. They not only deprive citizens and permanent resident aliens of jobs, but also depress the level of wages and working conditions in areas **where** they settle.

For example, the bitter strikes of the last decade in which Mexican American and Filipino **farm workers** were trying to organize into unions, were broken not by "**anglos**" (whites) or blacks, but by illegal immigrants from Mexico.

Cesar E. Chavez, of the United Farm Workers Organizing Committee, AFL-CIO, has said, "It is not only an illegal act . . . but a very serious moral problem. It also frustrates the organizing efforts of legitimate unions throughout the country by employing illegal entrants—wetbacks—as strike breakers."²

The flow of illegal immigrants could probably be reduced if the number of permanent resident visas were increased and the economic incentives for hiring illegal aliens were eliminated.

¹ *New York Times*,
April 23, 1972, p. 15
² Telegram quoted in
Hearing before the
Committee on Finance,
U.S. Senate, November 29,
1971, p. 66.

Title: POPULATION STABILIZATION*

Introduction: Many authorities agree that significant steps must be taken in the next few years to stabilize population before the growth factors become uncontrollable and massive famine takes place. Some suggest it is already too late, and are therefore willing to advocate extreme measures. Means available to limit population growth generally fall into three categories: those which can be freely chosen by individual families, those imposed by the mores of society, and those legislated by government. The latter, although most readily implemented on a mass basis, may result in the greatest loss of individual freedom.

Power and Authority becomes the central concept in this activity. Members of the group will be asked to examine alternative means of stabilizing the population and this will lead both to questions of who does have the power to make these decisions and who should have that power.

Briefly, the individuals are given a range of twenty-four proposals for stabilizing the population which are listed in random order. They are asked to rank order the five most acceptable and the five most objectionable proposals. The ensuing discussion is designed to weigh personal preferences, rights, and potential effectiveness of the suggested policies, leading to some conclusions about which are the most viable choices.

Objectives:

To discuss population stabilization proposals within the context of their impact on personal freedoms.

To distinguish proposals which do not affect freedoms, which exchange individual for social freedoms, or which restrict freedoms.

To suggest several population stabilization proposals and comment on their relative potential to be effective.

Time: 50 minutes

Materials: Individual copies of "Population Stabilization Proposals" and "Summary of Population Control Steps."

Procedure:

1. (10 minutes.) Pass out the student handout sheet titled "Stabilization Proposals" and ask the group to rank according to directions the five proposals that are most acceptable and the five that are least acceptable.
2. (5 minutes.) Go through the list and identify the items that most commonly appeared on one list or the other. If an item appears on both lists, set it aside. These items will be dealt with first.

*Adapted by Richard Schweissing. Both handouts are taken from a list compiled by participants at NSF Summer Institute on Population, Cincinnati, Ohio, Summer 1973.

3. Items that appeared on both lists (if applicable): Ask individuals to explain why the item appeared on their list. The range of answers for these items will be the same as for items the group generally agrees on, covering such considerations as effect on freedom, effectiveness, practicality, or conformity with current social values. Differences in response to a particular item will most likely arise out of the differences in values which individuals placed on these factors; i.e., the proposal may be extremely effective, but destroys human freedom. Once a difference is identified, the entire group should be encouraged to submit their own views of the choices and discuss which value is most important.

4. (20 minutes.) Reasons for selecting items that commonly appeared on the acceptable and objectionable lists should next be drawn out. Again ask individuals to state their reasons. The wording may be different, but the teacher should attempt to narrow the responses to general categories such as the choices suggested in item 3. From this discussion consensus of the group may cause certain values to emerge over others. If this happens, ask why these values are more important. If it does not happen, ask the group to backtrack and see if it can identify which values should be most important and if the specific proposals selected are consistent with the value choices they have made.

It is important that no one attempts to force their own values on another member of the group. Such tactics are not productive and seldom result in a real change of views. Emphasis should be placed on rationally discussing views and listening to and respecting differing views.

5. Pass out the student handout titled "Summary of Population Control Steps." Ask the group to measure their most commonly accepted responses against the criteria of this sheet. Do the responses continue to be acceptable given this approach toward looking at them? Why or why not?
6. (15 minutes.) The discussion should be concluded by someone (not necessarily the teacher or anyone preplanned) summarizing what they view as the overall conclusions arrived at by the group.

POPULATION STABILIZATION PROPOSALS

You pick up the morning newspaper to discover that the President of the U.S. has made an important speech endorsing population stabilization as a national goal and has just signed an important population bill into law. Read the following carefully and decide how ready you are to accept it as the bill the president signed. Place a 5 in front of the law you are most willing to accept, a 4 in front of the law you are next most willing to accept, and continue until you reach zero. Then select the law you find most objectionable and place a 5 in front of that law. Mark the second most objectionable with a 4 and continue as before until you reach zero.

1. Maternal care centers will be established to give birth control information to all women and to distribute free contraceptives on request.
2. Maternal care centers will be established in poverty areas of Appalachia and ghetto areas to give birth control info and distribute free contraceptives.
3. Abortions are legalized in all states. Women need only certification by their physicians that they will suffer no ill effects from the abortion.
4. The government will place a sterility solution into the water supply of all Americans. Couples may apply for an antidote to allow conception, but the request will be denied after the birth of the second child.
5. The government will issue licenses for birth. Each couple will be given two such licences, which may be bought and sold or passed around among families. Unlicensed births will be subject to a fine of \$1,000.
6. All girls reaching puberty will be sterilized by an injection. Upon marriage a second injection will allow them to have children.
7. Compulsory sterilization will be required of all males after the birth of a second child.
8. Population education will be a required part of the curriculum for all primary and secondary students.
9. National TV stations will be required to provide 10 hours of prime time annually for the showing of filmsurging reduction of family size.
10. Money in the amount of \$500 or a free color TV set will be given to any male who volunteers to be sterilized.
11. Any couple who has not given birth to a baby during the year may declare an extra deduction on their income tax.
12. Government regulations will be changed to allow any couple to deduct up to two dependent children.
13. All illegitimate pregnancies must be aborted by law. Failure to comply will result in a fine not to exceed \$2,000.
14. All health programs must provide maternity benefits for the first two children. Any benefits for additional children are prohibited by law.
15. An addition of \$250 will be made to the federal income tax owed for any child beyond two.
16. Government scholarships will be granted for the college education of two children. Any other children must be educated at the family's cost.
17. Each family will be granted a total of 8 years of free higher education to be allotted among the children as the parents decide.
18. The Social Security laws have been changed to allow the parents of smaller families to retire at earlier ages and get higher retirement benefits.
19. Tax laws will be changed to favor unmarried people and couples with few children.
20. The government will require two years of mandatory service in industry or organizations like VISTA or the Peace Corps from all females ages 17-25.
21. The government has funded Zero Population Growth activities. The first year the organization will receive 4 million dollars.
22. The government has set aside \$40,000,000 to sponsor research projects to develop a 100% effective contraceptive.
23. Federal housing is to be made available at a very low rate to couples having no more than two children.
24. The legal age for marriage is set at 21. Couples wishing to marry earlier must pay a penalty to secure a license. Those marrying later will benefit.

SUMMARY OF POPULATION CONTROL STEPS

Alternative One: Population Control Steps which enlarge the freedom of both individuals and society.

1. Intensive Educational Programs
2. Additional family style alternatives
3. Universal availability of effective contraceptives
4. Equality for women
5. Universal Old Age Security
6. Ability to choose the sex of unborn children
7. Universal availability of abortion on request

Alternative Two: Population Control Steps which Exchange individual for social freedoms, but which may reduce the population growth rate.

1. Encouraging Non-Familial Roles
2. Postponement of Marriage
3. Incentive Programs

Alternative Three: Population Control Steps which highly restrict freedom

1. Incentives powerful enough to be coercive
2. Marketable licenses to have children
3. Mandatory, temporary, or permanent sterilization
4. Mass fertility control agents

Title: CROWDING*

Introduction: Crowding may cause and/or accentuate many psychological and social problems. Crowding is considered to be a negative effect of rapid population growth. In this activity, students identify and cut out pictures or draw situations that demonstrate the concept of crowding and/or its effects. Then, students discuss to what degree the effects of crowding which they portray are due to population growth and to what degree the effects are due to social organization, planning, etc.

Objectives:

To identify a picture or make a drawing that reflects student ideas about crowding and its effects.

To infer the causes of crowding using the pictures and drawings that students have collected.

Time: One class period, plus time out of class to collect pictures or complete drawings.

Materials: If you provide magazines and newspapers for students to use, have them ready with scissors and construction paper.

NOTE TO TEACHERS: Refer to the teacher insert on the effects of crowding which is included with this activity before actually beginning the activity procedure.

Procedure:

1. Have students collect or draw pictures showing crowding and/or its effects. This picture can portray any area of the world. The more time that students are given to find or draw a picture, the better the pictures should be. This may mean that the teacher could allow up to 3 or 4 days to collect or draw the pictures.
2. Have the pictures mounted on a background of some kind. Construction paper should serve adequately for this purpose. When this is completed, ask the students to do any or all of the following activities:
 - a. Have each student meet with at least one other student on the basis of some similarity in their pictures. They can form groups larger than two, but each student must be in a group. List the categories students found as pairs or groups on the board. See if the group can do the task again without using any of the categories listed. They probably can. List these new categories, and use them with the questions in Step 3.
 - b. Have each student write a paragraph stating how his or her picture shows crowding and/or its effects.

*Developed by George G. Otero Jr.

- c. Have students exchange pictures while keeping their paragraphs. Ask them to write a paragraph describing how the picture they have received in the exchange demonstrates crowding and/or its effects, without talking to the person who originally selected or drew the picture. The student may feel the picture does not demonstrate the idea of crowding, and should state so in the paragraph if that is the case.
 - d. Have students work in pairs, comparing what they wrote about the pictures they received with the persons who first selected them. Did they see similar things in the pictures? If so, what were the visual clues? If the other person didn't see an example of crowding and its effects, why did the original selector of the picture find such an example of crowding? Maybe one of the two students will change their mind.
 - e. Have students write a story about the feelings or activities of a person in the situation and setting portrayed in the picture. This could be done with their own or someone else's picture.
3. Discuss these questions with the class:
- a. Which of the effects of crowding that have been listed or discussed are due primarily to population growth itself?
 - b. Which of the effects of crowding that have been listed or discussed are due primarily to social or economic or political factors such as laws, jobs available, prejudices, opportunities?
 - c. Which of the effects of crowding will become worse if the population continues to grow rapidly? (All of them.)
 - d. Which of the problems associated with crowding can and should be solved? Take one and write out or propose some solutions.

The Effects of Crowding (Teacher Notes)

The conclusions to be drawn from physiology are clear enough. Large segments of the human population may be suffering from the "stress response" syndrome without necessarily being aware of high levels of psychological stress at any one time. This has many ramifications which are in need of research. One practical notion is that physiological measures (such as corticosteroids in urine) be utilized to determine average stress levels in different kinds of housing arrangements.

Some conclusions that can be drawn from animal studies thus far are:

- A. "Crowding" is in large part a social phenomenon in that the same physical space may or may not be crowded, depending on how it is utilized for social interactions.
- B. The effects of overcrowding can be very different, as different as are the individuals in the population. But generally individuals with high social rank will be less affected than lower ranked individuals. This is true for behavioral, "pathological," reproductive, and stress responses. Further, different modes of behavioral adaptation may occur. Some individuals may respond with extreme aggressiveness and hyperactivity, while others may engage in sleepwalking.
- C. Effects of overcrowding are more profound for individuals who are born into an overcrowded population than for those who were raised in "better times" and merely had to deal with overcrowding as adults.
- D. Population growth is not automatically regulated by overcrowding, but instead results from a number of behavioral and physiological changes that accompany overcrowding.

Title: TOO MANY PEOPLE?*

Introduction: The number of people sharing a situation will affect the quality of the experience. Sometimes a lot of people make an event worthwhile; sometimes an activity that is enjoyable with a few people becomes less enjoyable when more people are involved. This activity points out two aspects of population size. First, the question of when there are too many people depends upon cultural views and the situation being considered. Second, the activity points out how all persons are affected by the size of population.

Objectives:

To make decisions about situations using the criterion of "too many people."

To describe situations that students like to be involved in, and describe similar situations which may involve too many people.

Time: One 50-minute class period

Materials: You will need a carrousel projector and slides. You can make your own slides or use pictures. Follow the Suggested Slide Descriptions. This is easily done.

Procedure:

1. Have students list on a sheet of paper ten things they really like to do. Have them put these lists aside.
2. Show the slides, asking students to raise their hands if the situation shown has too many people in it.

The students will not be sure what you mean. When would there be too many people? That is the question you want them to deal with in the activity. As students respond, have some of them give their reasons for thinking there are too many people in the particular situation (crowding, pollution, poverty, lack of space, less fun, etc.). List these on the board. Check with the class to see if other students agree or disagree about the rating students are giving the situations.

3. Discuss these questions after viewing the slides once:
 - a. On what basis did students rate the slides the way they did?
 - b. Were students' judgments based on the number of people alone, or did they also consider the environment, context, and culture?
 - c. Which slides did most students agree upon? Why?
 - d. Which slides did most students disagree on? Why?
4. Now have the students take the list of ten preferred activities they wrote at the beginning of the period and have them describe in writing when these situations would have too many people involved.

*Developed by George G. Otero Jr.

5. Have students share some of these situations. Have these situations ever had too many people? Is there a chance too many people will be doing this activity in the near future?

Further Suggestion:

Have students find their own pictures of situations with too many people. Post on a bulletin board titled "Too Many People." You might also have students write a short story about a situation they were in that had too many people.

SUGGESTED SLIDE DESCRIPTIONS

1. Traffic jam in Los Angeles.
2. Map of the Peoples' Republic of China.
3. Street scene in downtown Manhattan.
4. Housing in Calcutta, India - one entire family shares each brick-walled room.
5. Fans at a U.S. football game.
6. Soviet determination to keep down pollution on the Volga River makes swimming possible even beneath the smoking towers of this steel mill.
7. Recent rock-festival headline.
8. Sahara desert.
9. Junior high kids riding bikes in a group.
10. Part of Chief Lungu's 36 wives and 25 children--proclaims his wealth as head of a clan in Upper Zaire.
11. Session of the U.S. Congress.
12. Photo of map of the Denver Metro Area.
13. Mountain lake scene in America.
14. Boy in front of makeshift house in Sao Paulo, Brazil.
15. A gazetteer of place names at Watson Lake in the Yukon.
16. Some of the millions of peasant workers who have worked on projects on the Huai River, China.
17. Auto, airplane, and industrial pollution scene--United States.
18. A person sleeping in the streets of Calcutta. The weather there is humid, often 100 degrees.
19. Suburb--U.S.
20. Rhodesian blacks and whites--represents proportion of blacks to whites in a country where whites rule as a minority.
21. A flotilla of pleasure craft enters the locks of Kentucky Dam, the first upward step in the Tennessee's 650-mile navigation channel.
22. Black kids on a street in a neighborhood of New Haven, Connecticut.
23. New York City from the air.
24. Picture of the Watson family--American T.V.
25. U.S. unemployment lines in the 1930s.
26. Here at the largest square in India, a million people disperse after a rally for Prime Ministers Gandhi and Sheik Mugibur Rahman, February, 1972--India.
27. Shot of the earth from space.

Title: GOOD NEWS, BAD NEWS--WHERE DO WE STAND?*

Introduction: We hear all kinds of information about population and food every day. Issues of Newsweek and Time report on population and food. Newspapers and television have articles and special programs on the subject. Depending on what you read or hear at any one time, the situation related to population and food may seem good or it may seem bad. This activity allows data to be categorized as Good News or Bad News. Then, comparisons are made to determine some of the relationships between the data, data we often only evaluate piecemeal.

Objectives:

To decide whether data is "good" or "bad."

To compare data to identify relationships.

To recognize the need to look at multiple data sources when evaluation is made of the population/food situation.

Time: One class period

Materials: The chart and list of statements included should be duplicated. The information comes from many sources and may or not be current. That must be tested by the group.

Procedure:

1. Ask the students if they are pessimistic or optimistic about the chances of feeding the world and slowing rapid population growth.
2. Tell them that you would like them to rate some statements of fact. Using the chart, have them decide whether the statement, in their own judgment, is "good news" or "bad news." Have them copy the statement in the appropriate column or place the number of the statement in the column.
3. Have the students discuss the ratings. You might identify some statements and discover to what degree the participants agreed on the rating for that statement. Then, discuss these questions:
 - Are there statements in one column that make another statement seem less bad or less good?
 - What other statements make a statement seem much better or much worse?
 - Take a statement and draw lines to the other statements on the list which affect it.
 - Does the data confirm your pessimism or optimism? Why?
4. Ask the students if they have changed their minds about the ratings. Encourage them to collect more information that will help them evaluate the prospects for positive solutions to the population/food dilemma.

*Developed by George G. Otero Jr.

Evaluation:

Have the students write an opinion paper on the following statements:

1. Although world population is growing at an explosive rate (doubling every 35 years), this growth is not a large problem at the present time.
2. With modern technological know-how, the world will succeed in feeding its people in the future.

Further Suggestions:

1. Make a bulletin board with two sections--Good News and Bad News. Have people bring statements and place them on the board. These could be articles, pictures, etc. Let the group discuss the new information as it becomes available. This points out the continual process of data collection and attitude evaluation.
2. Put together a set of "Good News" statements and a set of "Bad News" statements about the population/food question. Which list outweighs the other?
3. Ask participants to write a paper describing their views of the population/food situation as gleaned from the "Good News"-"Bad News" statements included in this activity.
4. Ask participants to indicate the types of information they would require in order to adequately view the population/food question. The goal here is an appreciation of the multifaceted nature of population/food issues, and the need to examine a wide variety of sources before formulating any opinions on the question.

GOOD NEWS

BAD NEWS

STATEMENTS

1. Some countries are paying their farmers not to produce food.
2. Fifty nations are three times as crowded as the United States.
3. There are two billion acres of potentially arable land, most of it in the tropical regions of the world.
4. One-third of the arable land in the world is now used.
5. Much potential arable land must be irrigated.
6. Tropical land receives greater solar radiation and multiple crops could be raised each year on this land.
7. The soil in the tropics is very poor and erodes easily.
8. Infant death rates are dropping in almost every country of the world.
9. The universities of Latin America are graduating enough dentists each year to maintain the present ratio of dentist to population.
10. A U.N. report on world housing estimated that over 900 million persons in Africa, Asia, and Latin America are without proper housing.
11. The world could catch $2\frac{1}{2}$ times more fish from the sea than we now catch.
12. There is now a technique for sterilizing women that is much safer and less time-consuming than previously used methods.
13. Abortion is now legal in the U.S.
14. Most nations of the world now have family planning programs.
15. In the U.S. 40% of women interviewed in 1960 said they wanted 4 or more children.
16. Many of the new high-yield varieties of grains have lower protein content than pre-World War II varieties.
17. Research is now concentrating on developing and testing grain varieties with higher protein content as well as possible additives to enrich the present varieties.
18. The population of the world is growing faster today than at any time in man's history.
19. It is possible, though too expensive at present, to cultivate algae in water or even on petroleum or the sewage from our cities. The algae, after processing, could serve as a food source.
20. Life expectancy has increased in most parts of the world.
21. There are more hungry mouths in the world today than ever before in history.

22. A fifth of the total U.S. wheat crop was shipped to India alone in both 1966 and 1967.
23. The use of improved seed lines, water control, more fertilizer, and disease and pest controls have together brought about sharp increases in grain production around the world.
24. In 1800 the birth rate in the U.S. was 55/1000 women aged 15-49. This rate has decreased to 17.2/1000 women in 1971.
25. America has 6% of the world's people and consumes at least 40% of the world's resources.
26. A map of the cultivated land on our planet shows the Eastern and Central U.S., Europe, the Russian plains, India, and China to be the major cropland areas; the most adequate soils, by far, are those of the American Midwest.
27. Most countries, including the U.S., are running out of land that can be converted into cropland.
28. Land not under cultivation will require immense inputs of money for clearing, irrigation, and fertilization to make it productive.
29. Much productive land is diverted to crops such as tobacco and coffee.
30. The food that is annually lost in India to pests, poor storage, and bad transportation could feed fifty million persons.
31. Less than five percent of the soils of the tropics are potentially fertile cropland.
32. Many Americans have been reduced to buying pet food as a source of protein.
33. The fastest growing national organization in the U.S. is Weight Watchers.
34. About half the children in the underdeveloped countries perish in infancy from hunger or malnutrition.
35. One farmer in the U.S. now feeds over 30 people.
36. The part of the population with average daily energy (caloric) intake below need minimums is 90% for Asia, 40% for Africa, and 30% for Latin America.
37. Almost three billion dollars are needed annually in the poorer nations to develop new crop lands to keep up with the population growth.
38. It takes 400 years to build up an inch of topsoil.
39. It takes \$50 to bring an acre of new land into high productivity.

Title: ARE PEOPLE THE PROBLEM?*

Introduction: Many people, especially in this country, feel that the population problem is simply a people problem. They feel that there are too many people being born in the world today. There are others, however, who say we must look at additional factors if we wish to get a clear view of the problems associated with rapid population growth. In this activity, students inquire into the relationships between numbers of people and energy consumption. The students formulate some tentative conclusions after having sorted the data on the two topics. Then, the students test some of these conclusions using another data chart. In summarizing, students are asked to consider this statement based on the data they have examined: The United States is the most overpopulated nation in the world today.

Objectives:

To sort two sources of data so that comparisons between the data can be made.

To consider other factors besides the number of people when discussing the problems associated with population growth.

To generate tentative conclusions as to whether energy consumption is more important than the number of people in considering population growth.

To test the generalizations formulated by examining further data.

To provide students with data that will foster a discussion of this statement: The United States is the most overpopulated nation in the world today.

Time: Two class periods

Materials: You will need to duplicate enough copies of Worksheets 1, 2, and 3 for every student.

Procedure:

1. Hand out worksheet 1 to the students. Before beginning the activity, have students suggest some of the ways we use and consume energy in this country. What aspects of our lives depend on energy being available? List them.
2. Have students complete worksheet 1.
3. Have students complete worksheet 2 either individually, in pairs, or as an entire class.

*Developed by George G. Otero Jr. Adapted from an activity by Margaret Palcynski, NSF Summer 1973 Institute, Cincinnati, Ohio.

4. Discuss some of the students' answers to the questions in worksheet 2. Tell the class they will test these answers by examining and analyzing one more chart related to energy consumption.
5. Have students complete worksheet 3. Then, have a general oral discussion or have students write their responses to this statement, agreeing or disagreeing with it: THE UNITED STATES IS THE MOST OVERPOPULATED COUNTRY IN THE WORLD TODAY.

ARE PEOPLE THE PROBLEM?

If we start cutting down population numbers tomorrow (by decreasing birth rates, etc.), would this solve the entire problem? Do countries with the smallest population size have the smallest population problem?

Energy has been a vital prerequisite for development in technology, science, and medicine. It is an important factor in the world today. By looking at its relationship to population size, we can shed some light on the above questions.

Look at the figures for the following major world areas:

	ENERGY CONSUMED ¹		POPULATION SIZE ²	
	Million Metric Tons	%	Millions	%
Africa	164.06	2.0	413	10.3
North America (U.S. and Canada)	2716.20	32.7	238	5.9
Mexico, Central America, and the Caribbean	184.51	2.2	146	3.6
South America	157.72	1.9	182	4.5
Asian Middle East	143.68	1.7	123	3.1
Asia, except Middle East	703.66	8.5	1263	31.4
Centrally Planned Economies ³	2569.85	30.9	1266	31.5
Western Europe	1572.98	18.9	367	9.1

What does the data tell us? List the areas in decreasing order of energy consumption and population size. Indicate the percentage after each.

highest

Energy Consumption

Population Size



lowest

¹U.N. Statistical Yearbook, 1977. Figures are for 1976, and show million metric tons of coal equivalent.

²Calculated from source in note 1. The figures do not add up to 100 percent because of data omissions and rounding.

³Albania, Bulgaria, China, Czechoslovakia, German Democratic Republic, Hungary, Korean Democratic Republic, Mongolia, Poland, Romania, U.S.S.R., and Vietnam.

ARE PEOPLE THE PROBLEM?

1. 5.9% of the world's population consumes _____% of the world's energy while..

31.4% of the world's population consumes _____% of the world's energy.

What might account for this?

2. In your opinion, would a decrease in the population growth rate of the U.S. decrease energy consumption?
3. In your opinion, would a decrease in the population growth rate of Asia automatically increase energy consumption in Asia?
4. If all world areas eventually reach an energy consumption level comparable to that of North America, what other problems might result?
5. What does this data suggest is more of a contributing factor to the population problem than a simple rise in numbers of people in an area?

ARE PEOPLE THE PROBLEM?

Below is another chart which shows energy consumption over a set time period in the major regions of the world. You should compute per capita energy consumption for each region and the United States. This can be done by dividing energy consumption by the population to obtain an estimate of the energy used by the average person living in a region. The first area is done for you.

<u>Region</u>	<u>1950: Consumption¹</u>	<u>Population²</u>	<u>Per Capita Consumption</u>
Africa	1,297	217.0	5,976, 959 million
Asia	5,054	1,375.2	
Europe	21,897	392.1	
Latin America	2,397	161.9	
North America	36,860	166.1	
United States	34,153	152.3	
Oceania	890	12.2	
USSR	<u>8,427</u>	<u>180.0</u>	
World	76,823	2,504.5	

<u>Region</u>	<u>1968: Consumption¹</u>	<u>Population²</u>	<u>Per Capita Consumption</u>
Africa	3,343	336.5	
Asia	26,099	1,947.9	
Europe	52,799	454.7	
Latin America	8,034	267.4	
North America	68,594	222.0	
United States	62,432	201.2	
Oceania	2,240	18.3	
USSR	<u>28,628</u>	<u>237.8</u>	
World	189,737	3,484.5	

Now examine your answers to the questions in worksheet 1. Does this data support your conclusions? Explain.

How would you now answer the first two questions on worksheet 1?

Now, considering what you have studied, respond to this statement:
THE UNITED STATES IS THE MOST OVERPOPULATED COUNTRY IN THE WORLD.

¹Trillion Btu's.

²Millions

Source: Darmstadter, Joel, "Energy," in Population, Resources and the Environment, ed. by Ronald G. Ridker, GPO, Washington, 1972.

ARE PEOPLE THE PROBLEM?

Now look at the following table which lists per capita consumption (in kilograms) for major areas of the world in 1973 and 1976. (These areas are divided differently than those you just calculated.)

	<u>1973</u>	<u>1976</u>
World	2041	2069
Africa	353	397
North America	11,534	11,395
Mexico, Central America, and the Caribbean	1,259	1,265
South America	815	868
Asian Middle East	977	1,169
Asia, except Middle East	564	557
Western Europe	4,281	4,289
Centrally Planned Economies	1,838	2,030

Which areas increased in per capita consumption during this period? Which decreased or stayed about the same?

List reasons--world events, past consumption habits, etc.--which might have affected global energy consumption patterns during this period.

Do you think present and future trends will affect your future response to the last question on the previous page? Is there any hope for the world's population problems as they relate to energy consumption?

Title: POP QUOTES (MOBILES IN THE CLASSROOM)*

Introduction: Quotes can stimulate us to think about a topic. Quotes can interest us in a subject that is not at first of interest, especially if the quote is funny. One way to spark students to think about population-related issues is by making mobiles of quotes about population and then using the quotes in any of the ways described in this activity. Kids can make the mobiles, they add color to the class, and they serve as constant reminders during the unit of some of the important concepts and issues with which the students will be dealing. Believe it or not, the mobiles can also be used as the evaluation instrument for a unit on population! Read on to find out more about the use of pop quotes in the classroom.

Objectives:

To spark student interest in a variety of population issues by presenting them with short quotes that are funny and interesting.

To use quotes as a stimulus for discussion of some of the important population and food issues.

Time: One class period to make mobiles; one class period to discuss.

Materials: Poster board (different colors), scissors, colored markers or paint, duplicated list of quotes, string to hang the mobiles

Procedure:

1. You can make the mobiles yourself and hang them up, or you can make them as a class activity.
2. Hand out the quotes. Let pairs of students make mobiles out of the quotes. Have them vary the sizes and shapes of the mobiles. Also, have them write their quotes on both sides of the mobiles. Then, hang the mobiles.

The following are a number of ways the mobiles can be used once they have been displayed.

1. You can leave the mobiles up and discuss different ones throughout the unit as students ask about them. Usually, one student will ask a question about a mobile and that will lead other students to ask questions about the meaning of other mobiles.
2. You can have students pick two or three mobiles for which they will write explanations. Students should be given time (one week or two) to write these explanations. Most of them will be explained or dealt with as you do other population and food exercises during your class' study of population. Students may also do some research on these items. Then, students report their conclusions to the class.

*Developed by George G. Otero Jr. Quotes collected at NSF Summer Institute, Cincinnati, Ohio, 1973.

3. You can use approach 1 and/or 2 and then use the mobiles for evaluation purposes. Students who can explain the meanings and implications of the mobiles probably have a good grasp of population dynamics. This approach to evaluation is also less threatening as well as being novel to the students.
4. Students can find other quotes or make their own. These can be made into mobiles and added to the ones already displayed.

QUOTES FOR MOBILES

1. ZPG is like hitch-hiking--you know you'll get there, the only question is when and how.
2. $1 + 1 \neq 2$ in many families.
3. What makes you different from anybody else? It's probably the genes you're wearing.
4. Support ZPG--go bowling.
5. Replacement level $\neq$ ZPG.
6. Spaceship earth --a finite system.
7. Population Explosion = Fact
Population Crisis = Opinion
8. What is optimum population?
9. Quality vs quantity--a crucial concern.
10. Save water--shower with a friend.
11. Calhoun's rats were dense!
12. "To be" has become to mean in the developed countries "to have."
(Goulet)
13. Will the stork pass the plow?
14. Will the baby boom boom?
15. There are so many people in the world, that God cannot appear to them except in the form of food. (Gandhi)
16. Growth for growth's sake is the philosophy of the cancer cell.
17. Help ecology: Take a lemming to the beach.

Explanation of Quotes

1. Population cannot grow forever, there are limits. The question is how we will reach those limits: by choice and planning or as a result of natural biological controls such as those mentioned by Malthus? Maybe both?
2. This rests on the fact that simple addition doesn't work in social situations such as families. A woman and a man joining in marriage almost always results in a group of 3 or 4 and NOT 2.
3. Simply a play on the word genes.
4. Going bowling is not the way to support zero population growth. This points out a myth about how we attain ZPG. Abstention is not the approach. Family planning and adequate availability of birth control approaches is probably better.
5. The replacement level is often said to be the same as ZPG. This is not true. With ZPG the total number of people in the population will stay the same from year to year. A nation that has reached the replacement level (1 child for each adult) can still grow in total population because of the distribution of the population by age (people live longer!).
6. The earth is limited in the space, food, water, and shelter it can offer its inhabitants. Although we may not know the exact limits, we must be aware that there are limits and the population cannot grow forever.
7. By most definitions the world population is exploding. Exponential growth operates that way. That is a fact. Yet it is opinion when we consider this growth as a crisis or not. Some countries do, some don't. Some people feel this growth can be controlled and some people believe that growth is already uncontrollable. What do the students think?
8. This quote simply introduces the term "optimum." What is the best or ideal or most people this earth can hold? Under what criteria will you make a judgment?
9. To some people the population issue is stated in this quote. Do we want more people and things or do we want better quality in the people and things we already have around? This is a crucial question.
10. This is again a humorous quote with no large message, but you or your students may find one.
11. Calhoun is a scientist who experimented with crowding and rats. You can locate this experiment in the Reader's Guide under Calhoun's name. These rats became extinct most of the time in the experiments. Not only were they densely crowded but they were dense in letting their group become extinct!
12. Get it.
13. The stork represents births and the plow food production. Will it or has it already?
14. The baby boom is the period in US history after WWII up to 1957 where birth rates were very, very high. If all these babies have lots of babies the population will explode because of exponential growth.

15. Good statement from Gandhi about other perspectives on the problem for many people in the world. Also indicates what religion must do.

16. Many people think growth is good anytime and always. By comparing that philosophy with the pattern of cancer helps raise questions about this philosophy.

17. Lemmings are small animals that control their population by periodically throwing themselves in the ocean. Look up the story. What other methods of control are there?

Title: WOMEN AND POPULATION: A SIMULATION*

Introduction: What role do the women of the world play in the population "problem"? What role can they play? What choices must be made? Can the population be controlled? By what means? Will it be possible to control the population in ways which increase the freedom of both individuals and society? Must we restrict population growth by means which are highly coercive and which limit personal freedom? These are all serious questions to which students living in the twentieth century will have to find answers. The following simulation tries to help the student understand many viewpoints by experiencing the conflicts inherent in any discussion of the population "problem."

In order to develop this simulation the following conditions were established:

1. Definition of problem
2. Limitation of plausible solutions
3. Selection of relevant variables
4. Establishment of roles for conflict

Objectives:

To become practiced in simulation role-playing.

To be able to experience the complexity of formulating solutions by consensus.

To be able to appreciate cross-cultural differences of women's roles in approaches to the population problem.

Time: One-two class periods

Materials: Role sheets, proposals, background information

Procedure:

Quantifiable information should be provided for the students to allow them greater leverage in the discussion.

1. Introduce the simulation:

Introduction

This exercise simulates a meeting of a committee formed at the International Women's Year Conference in Mexico City with the task of adopting a "women's" position on population growth and possible solutions to the growth problem. You will each be assigned the role of a participant in the meeting. We will form as many committees as necessary. Each committee must come to consensus on a proposal to be presented to the United Nations General Assembly.

*Developed by Theresa Noland, Ranum High School, Westminster, Colorado.

2. Remind the students that the roles they will play are those of individual persons and should not be used in a stereotypical fashion.
3. Divide the class into groups of five students each. Any extra students may be assigned the role of United Nations observers.
4. Hand out role sheets, proposals, and background information.
5. Provide time for each country's representatives to meet together to clarify their positions.
6. Call the committees to order and allow time for discussion and consensus seeking.
7. Ask for reports from groups on resolutions adopted. (This part of the lesson should be kept short.)
8. Debrief. A list of possible questions follows.
 - a. How did your group function?
 - b. Was it hard to come to consensus? Why?
 - c. How was this simulation like the real world? Give examples.
 - d. How was this simulation unlike the real world?
 - e. How might this simulation be improved?
 - f. What factors favor the solution adopted by your group?
 - g. What factors work against the solution adopted by your group?
 - h. Would the solution adopted by your group solve the population growth problem?
 - i. What will happen to the women in our simulation if they (and the other women of the world), because of overpopulation, are denied the role of mother?

This last question is perhaps the crucial question (i) and may be the beginning of a new unit.

BACKGROUND INFORMATION

		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Role 1	India	yes	no	no	yes	no	yes	open
Role 2	El Salvador	yes	no	no	no	no	yes	open
Role 3	Nigeria	yes	yes	no	no	no	no	open
Role 4	USA	yes	yes	no	yes	yes	yes	open
Role 5	China	Does not favor ANY solution						

ROLE SHEETS (Cut between roles)

REPRESENTATIVE OF INDIA

You are a young married woman with five live children. Several of your pregnancies have ended in miscarriage, and one of your children dies at age two from malnutrition. You would like to become pregnant again because only one of your children is a male and "life is precarious." You must have more male children so that in your old age you will have a family to support you since you know that your daughters will marry and be lost to you. As the youngest wife in the family compound you have no status and not too much hope of advancement in status. As a mother-in-law, however,, you would be "top dog." You are a person who is not deeply religious, but you feel strongly that it is immoral to interfere with the processes of conception and birth.

You are completely non-political. Your nation is the world's largest democracy, but you are disillusioned with the political process. Your major concern is food: how more can be grown; how people can earn the money necessary to buy it; and how it can be better distributed.

You would not support what has come to be a major facet of population control: jobs for women. You do not work outside your home, and you feel that job opportunities for women and child care centers would be destructive for your culture.

ROLE SHEETS

REPRESENTATIVE OF EL SALVADOR

You are a thirty year old married woman with four live children. You have had three children die in infancy. Your husband equates status with family size and frequently brags about his family. Both of you want, and expect, more children. You need children to help you work the land which you rent on a tenant basis. Your religion prohibits birth control and you agree with the position of your church.

You are especially interested in increased health care, including pre-natal care and pediatric clinics. You do not feel that population growth is a problem, and you attempt to focus the discussion on food, resource use and abuse, and world aid for health care to keep your children alive. You will not support a position which is contrary to your religious beliefs even though you know that many women in your country feel the necessity of social, economic, and political revolution.

REPRESENTATIVE OF THE UNITED STATES OF AMERICA

You are a young married woman with two school-age children. You believe that your children are only a part of your life. Your career in government, your service to the community, the nation, and the world also seem very important to you.

As a representative of a highly industrialized society, with a high level of education, and a low birth rate, you also believe that increased industrialization, compulsory education, and availability of family planning advice will solve the world's population growth problems, and you support efforts which seem to advance these goals. On the other hand, because you believe in individual choice, you will not agree to any solution which calls for population control by non-democratic means.

Your country has in the past supported various United Nations' projects, but support is dwindling, and additional funding may not be possible. At the same time, you are frequently critical of the underdeveloped countries' failure to control the birth rate in the third world. You spend a great deal of time in the meeting trying to prove the superiority of the democratic way of life. You also urge the women on the committee to act "responsibly" and limit the births in their countries by whatever means are necessary.

ROLE SHEETS

REPRESENTATIVE OF THE PEOPLE'S REPUBLIC OF CHINA

You are a twenty-eight year old single woman, a member of the Communist Party, and a worker on a very successful commune. You plan to marry "at the right time" and to have the proper number of children. The size of your family will be determined by the needs of the state. Of course you agree with this method of family planning.

As a party member, selected by the party to represent the People's Republic at this important international conference, you are a strong advocate for revolution. You will not accept any proposals which do not include the elimination (or at least, weakening) of capitalism and imperialism. You believe that only a collective world effort will solve world population problems. You believe, however, that population is not the essential problem, but that resource abuse by the capitalist nations is. You will not, of course, agree to any outside control or inspection of your country's efforts in any area. You feel the solution to world problems is best stated in Chairman Mao's words, "REVOLUTION PLUS PRODUCTION", as well as, "SERVE THE PEOPLE".

REPRESENTATIVE OF NIGERIA

You are a young married woman with seven live children, the second wife of a farmer. You realize that you will not be mistreated as long as you continue to have children. Your children are your life's main pride, but you would like, somehow, to limit your family to its present size because your land will not support a larger family.

You would like to see your daughters minimally educated, as well as your sons, but you do not support any efforts to train girls for jobs outside the home. You believe also that people should remain close to the earth, and would resist efforts to increase industrialization beyond minimum levels. You would oppose very strongly any program which called for late marriages and limits on the number of children a family would be allowed to have. Your country cannot afford large scale education or family planning efforts and so you look to the world community for help.

PROPOSALS

ALTERNATIVE 1: Resolved: National health and nutrition programs should be instituted to provide health care for mothers during and after pregnancy, and for infants until they reach two years of age. Advice regarding proper nutrition and food aid, if necessary, should also be provided. United Nations funding and supervision will be available wherever necessary.

ALTERNATIVE 2: Resolved: A Family Planning Program should be instituted to provide contraceptives and vasectomies to people who desire such birth control aid. Information will also be disseminated on the health benefits to both mothers and children when there is adequate spacing between births. United Nations funding and supervision will be available wherever necessary.

ALTERNATIVE 3: Resolved: The nations of the world should require that all marriages be postponed until each member of the couple has reached twenty years of age. In addition, the nations of the world should limit family size by law to three children.

ALTERNATIVE 4: Resolved: The nations of the world should provide at least eight years of education for all children. Girls should be taught skills which will qualify them for jobs other than those which are low-paying, menial, and domestic. United Nations funding and supervision will be available wherever necessary.

ALTERNATIVE 5: Resolved: The nations of the world should embark on a program to expand job opportunities for women. No discrimination should be allowed against women in hiring programs. Women must receive equal pay and equal benefits with men. Pregnancy should not be a basis for dismissal from a job. Parental leaves of absence for at least six weeks after the birth of a child must be guaranteed. An adequate child care program should be developed so that mothers who work can be sure that their children are receiving proper care. United Nations funding and supervision will be available wherever necessary.

ALTERNATIVE 6: Resolved: The nations of the world should institute a program of social security to care for the elderly who have no relatives or other means to support themselves. United Nations funding and supervision will be available wherever necessary.

ALTERNATIVE 7: Resolved: This is an open option. Your resolution must be clearly stated.

Title: DON'T TELL ME ABOUT PLANNING!*

Introduction: One more woman from a subculture in our own country tells her story revealing yet more attitudes toward childbearing. Excerpt is read and discussed by students.

Objectives:

Given a statement by a woman representing a subculture in the United States, students will articulate her reasons for desiring children.

To generate hypotheses regarding opportunities available to others and relate this to reasons for childbearing.

Time: $\frac{1}{2}$ -1 day

Materials: Student handout "Don't Tell Me about Planning" and accompanying questions

Procedure:

1. Pass out handout, "Don't Tell Me about Planning!"
2. Read the introduction aloud. Ask if there are any disagreements to the statement regarding "welfare rewards" for large families among the poor.
3. The questions following the reading are intended to be discussion prompts. They may be written out and turned in at the teacher's discretion.
4. Too often we have the tendency to apply our assumptions to the condition of others. For many Americans, children have become an economic liability. The question of family size in the U.S. is often phrased: "Can we afford to have more children?" The woman in this reading is not using this same value system.
5. Pay particular attention to the third paragraph: "To me, having a baby inside of me is the only time I'm really alive.... I know I can do something..." Ask the class what they think she means by this statement. What other opportunities does this woman have for status in her life? What alternatives does she have?
6. Try a "role-reversal" format. Ask one student to role play a family planning advocate urging the woman to use birth control. Ask another student to role play the woman in the reading, giving her reasons for rejecting birth control. After a few minutes into the role play, have the students "switch" parts. Each person should not be acting--or arguing--from the other's point of view.

*Developed by Jacquelyn Johnson.

7. Culminate the activity by summarizing the introduction and posing the question:

What does this woman need--or need to feel--before she will choose to limit her family size?

Discussion might center around equal access to opportunities within the United States.

DON'T TELL ME ABOUT PLANNING!

Why do people choose to have children? The reasons are many. We are often quick to criticize others, especially the poor for having larger families. A frequent criticism many people make of poverty-stricken families is that the reason they have many children is so they can collect more welfare money from the government.

In the following reading, one more woman shares her story with us.

"They came telling us not to have children, and not to have children, and sweep up, and all that. There isn't anything they don't want to do to you, or tell you to do. They tell you you're bad and worse than others, and you're lazy, and you don't know how to get along like others do. Well, for so long they told us we couldn't ever go near anyone else, I suppose we should be grateful for being told we're not going to get near enough if we don't behave in the right way - which is the sermon I get all the time now.

"Then they say we should look different, and eat different - use more of the protein. I tell them about the prices, but they reply about 'planning' --planning, planning, that's all they tell you. The worst of it is that they try to get you to plan your kids, by the year; except they mean by the ten-year plan, one every ten years. The truth is, they don't want you to have any, if they could help it.

"To me, having a baby inside me is the only time I'm really alive. I know I can make something, do something, no matter what color my skin is, and what names people call me. When the baby gets born I see him, and he's full of life, or she is; and I think to myself that it doesn't make any difference what happens later, at least now we've got a chance, or the baby does. You can see the little one grow and get larger and start doing things, and you feel there must be some hope, some chance that things will get better; because there it is, right before you, a real, live, growing baby. The children and their father feel it, too, just like I do. They feel the baby is a good sign, or at least he's some sign. If we didn't have that, what would be the difference from death? Even without children my life would still be bad -- they're not going to give us what they have, the birth control people. They just want us to be a poor version of them only without our children and our faith in God and our tasty fried food, or anything.

"They'll tell you we are 'neglectful,' we don't take proper care of the children. But that's a lie, because we do, until we can't any longer, because the time has come for the street to claim them, to take them away and teach them what a poor nigger's life is like. I don't care what anyone says: I take the best care of my children. I scream the ten commandments at them every day, until one by one they learn them by heart -- and believe me they don't forget them. (You can ask my minister if I'm not telling the truth.) It's when they leave for school, and start seeing the streets and everything, that's when there's the change; and by the time they're ten or so, it's all I can do to say anything, because I don't even believe my own words, to be honest. I tell them, please be good; but I know it's no use, not when they can't get a fair break, and there are the sheriffs down South and up here the policemen, ready to kick you for so much as breathing your feelings. So I turn my eyes on the little children, and keep on praying that one of them will grow up at the right second, when the schoolteachers have time to say hello and give him the lessons he needs, and then they get rid of the building here and let us have a place you can breathe in and not get bitten all the time, and when the men can find work -- because they can't have children, so they drink or get on drugs to find some happy moments, and some hope about things."

Excerpted from Robert Coles, Children of Crisis, Little, Brown and Co.

- (1) Who do you think are "they" in this woman's story?
- (2) What is this woman's perception of "planning"?
- (3) Does she feel "they" are imposing on her rights as a human being? Why or why not? Do you agree or disagree with her? Why?
- (4) How does she "feel" when she is pregnant? Cite evidence in her story.
- (5) Are babies important to her? Cite evidence in her story.
- (6) What aspirations does she have for her children?
- (7) Does this woman think she neglects her children? Do others think she neglects them? Why?
- (8) Why do you think this woman chooses to have so many children?
- (9) What other opportunities are available to the woman in this story?
- (10) What do you think the title "Children of Crisis" means?

Title: POPULATION CONTROL: WHERE DO YOU STAND?*

Introduction: A summary of population control steps are presented. The statements represent a wide variety of programs, some enlarging the freedoms of individuals and others greatly restricting individual freedoms. Students are asked to identify those steps they feel are necessary now to curb population growth.

Objectives:

Given a number of alternatives related to population growth, students will categorize them according to steps which enlarge both individual and societal freedoms, steps in which an individual gives up freedoms for the betterment of society and steps which greatly limit the freedom of individuals.

To articulate relationships between population control programs and amount of individual and societal freedoms.

To articulate which steps are most urgent and which will be necessary in the future if growth rates continue.

To articulate how individual choices and actions can influence population growth (i.e., the student will see himself as a population actor).

Time: One to two days

Materials: Student card sort; and "Population Control: Where Do You Stand?"

Procedure:

1. Begin with a discussion of population control. Is it necessary now? How do students view population growth--as a problem or a crisis?
2. Introduce the following categories for steps in population control:
 - a. Population control steps which enlarge individual freedoms and the freedom of society.
 - b. Population control steps in which the individual gives up freedoms for the betterment of society.
 - c. Population control steps which greatly limit individual freedom (i.e., totalitarian controls).

Poll student responses for examples of population control steps in each category.

3. Divide the class into groups of four to five and assign the card sort activity. Students should read the alternatives and categorize each one into one of the three categories outlined above. They should also identify the reasons for their choices and be prepared to defend why they placed each population control step in a particular category. Encourage students to develop their own cards for this activity, also.

*Developed by Jacquelyn Johnson.

4. Allow time for groups to compare their results with one another. Class results should resemble the following:

Group I: Education Programs; Equality for Women; Social Security; Ability to choose sex of unborn child; Abortion.

Group II: Postponment of Marriage; Incentives and rewards; Birth Control.

Group III: Penalties for large families; licenses to have children; sterilization of parents.

5. Share the above categorization with the class. Poll the students for agreement and disagreement to this categorization. Ask students to share their alternative "write-in" population steps with the rest of the class.
6. Next, instruct groups to categorize the alternatives according to those they feel are necessary now to curb population growth and those which will be necessary in the future if present growth rates continue.
7. Ask students which alternatives they themselves would be willing to adopt. Have they changed their opinions related to family size as a result of these activities? If so, in what way?

Directions: Cut out each alternative and place in the appropriate category on the next page. Be able to defend your choices.

EDUCATIONAL PROGRAMS
Making people aware of our population growth problem might help to solve it.

ABORTIONS
If safe and legal, abortions were available on demand, population growth might be limited.

BIRTH CONTROL

Make birth control means available to anyone who wants it. The effect will be to curb population growth.

STERILIZATION

After two children, one or both parents will be sterilized to halt population growth.

EQUALITY FOR WOMEN

Equalizing opportunities for women will provide them with other roles to fulfill and they'll have fewer children.

POSTPONEMENT OF MARRIAGE

Raise the age of consent so people would marry later in life, thus reducing the number of child-bearing years.

SEVERE PENALTIES FOR LARGE FAMILIES
People will be fined or heavily taxed for any children beyond the legal limit of two.

INCENTIVES AND REWARDS FOR SMALL FAMILIES
A reward system will be set up for people who limit their family size. They would pay less in taxes.

CHOOSING THE SEX OF AN UNBORN CHILD
People often continue to have children until they get the boy or girl they want. Families could choose the sex of their children, thereby limiting their size.

SOCIAL SECURITY IN OLD AGE
If people were financially cared for in old age, then they wouldn't need large families and families would choose to limit their size.

LICENSES TO HAVE CHILDREN
People must meet certain qualifications to get a legal license to have children.

CARD SORT: POPULATION CONTROL: WHERE DO YOU STAND?

CATEGORY I: Population control steps which enlarge individual freedoms and the freedom of our whole society.

CATEGORY II: Population control steps in which an individual gives up freedoms for the betterment of his/her society.

CATEGORY III: Population control steps which greatly limit individual freedoms.

Title: WHAT IF? (ROLL OVER BEETHOVEN)*

Introduction: Life expectancy is a population concept. Today, most people living in the United States can expect to live 65-75 years on the average. In other countries of the world, especially Latin American and African countries, life expectancy might average 50-55 years.

At different periods in human history, life expectancy was as low as 30 years. Yet, we often assume that people have always lived as long as people tend to live today. In this activity, participants are involved in creative writing about situations involving life expectancy changes.

Objectives:

Given hypothetical situations involving life expectancies, students will express in writing their predictions and reactions to the hypothetical situations.

To learn about the variability of life expectancies in human history and its effects on human culture.

Time: One class period

Materials: You might ditto the situation sheet for each participant or read the situations to the group.

Procedure:

1. Ask the group to write on a sheet of paper how long they expect to live (a specific age). Collect the responses, and determine an average. You might have some participants share their reasoning with the group.
2. Tell the group that you have a list of situations involving life expectancies to which you would like the group's reactions. Mention to the group that life expectancies have not always been so high. Were people different when they thought they would only live to be 35 or 40 years old? Do low life expectancies promote or hinder creativity? Were people's energies consumed by caring for illness and disease when many of these maladies were uncontrollable?
3. Give the group the list of situations and have each student choose one to write about the effects of the change on the person or society. These can be read and discussed by the group. The writing can be done in different forms, such as short story writing, poetry, etc.

Further Suggestions:

The group might want to do some research on the life spans of people that interest them. They could make hypotheses about certain groups of people in certain periods and then attempt to verify those guesses.

*Developed by George G. Otero Jr.

WHAT IF?

1. What if Beethoven had lived to be 65 instead of dying in his 30s?
2. What if President Kennedy had lived to be 60 years old instead of dying a violent death while in his 40s?
3. What if women lived 20 years longer than men rather than the present 6-8 years longer which is the current average?
4. What if you could only expect to live to the age of 35? Would you change your goals? Your behavior?
5. What if you could expect to live to the age of 150 years?
6. What if Joe Namath could be healthy and strong and play football till the age of 60 years?
7. What if you could buy pills (at \$20,000 each) that would allow you to live 5 years longer for each pill taken?
8. Pick another famous person. What would have happened if that person's life span was doubled?
9. What if you could pick 3 people's lives to shorten in life expectancy---who would you choose?
10. What if you could pick 3 people's life spans to double in length---who would you choose?

Title: POPULATION: TO BE OR NOT TO BE A PROBLEM?*

Introduction: This is a short activity designed to introduce students to two views about population changes. For many persons, population growth is a "problem." Yet for many other persons, population growth is not a problem. Students read the two positions and decide which side they belong to, taking into account the knowledge and attitudes they hold at the present time.

Objectives:

To introduce students to the two positions, namely whether or not population growth is a problem.

To encourage students to make a decision about their positions on population growth based on the knowledge and attitudes they presently hold.

Time: One class period

Materials: Duplicate copies of the handout "Current Positions on Population Growth"

Procedure:

1. Ask the class members to raise their hands if they think population growth is a problem. Have them keep their hands raised if they think population growth is the most important problem facing mankind today. Mention to the group that there are many people who think population is not a problem.
2. Hand out the reading. Tell the students to read the material carefully. Then, have each participant make a decision. Based on what you know and on your own personal values, is population growth a problem or is it not a problem? Have participants write responses.
3. Collect the responses. These can be used as an evaluation procedure if the group further examines the issue using other materials and activities. Participants would then have the opportunity to read what they wrote and compare that response with a later position which might incorporate knowledge and attitudes not present when the activity was initially completed.
4. In concluding the activity, you could raise a few questions for discussion:
 - a. If the symptoms are similar, why do people have different explanations for the causes and solutions behind those symptoms?
 - b. Which position do you think people in Japan hold? Russia? China? Which position do you think is held by people living in the developing countries of the world?

*Developed by George G. Otero Jr.

In a rough way, these positions on both handouts may illustrate the range of current opinion. They at least state major points about population growth although they are simplistic and have many variations in context. In addition, these positions are not exclusive of one another. People holding different beliefs might support the same policy by the government but for different reasons. This activity should at least start some thinking.

CURRENT POSITIONS ON POPULATION GROWTH

(1) Population Growth Is Not a Problem*

1. Population growth as a problem in itself is not important compared to other problems facing the world, such as peace, poverty, racism, and health. The people coming into the world today can be taken care of in the same ways people have been provided for in the past.

2. The problem is not population growth but economic development. Under correct economic conditions -- ideally a situation where the public is in control of production of goods and services -- population will take care of itself and disappear as a problem. Development is the problem facing humans today.

The problem is not population growth but environmental and resource depletion. The problem is the over-consumption of developed countries like the United States and not the growth of population in developing countries like Ghana or Chile. This consumption uses up resources on the one hand and produces pollution on the other.

The problem is not population growth but health levels. If we would control disease and death rates, birth control will follow. We must provide for the basic health and nutrition of every person.

The problem is not the growth of population but its distribution. It is not the total numbers that create problems, but the way those people distribute themselves on the earth, leading to the bad effects of urbanization (big cities).

3. Population growth is a false issue. It is a tactic used by rich countries to keep control of poor countries. Rich countries focus on population control instead of the real problem of development.

4. Population growth, at least in some places, is desirable. Increased population is needed in some areas to fill up and develop available lands. Increased population is needed to build the labor force in some areas. Increased population is also desirable politically to build the nation, supply the army, and build a young generation of people to vitalize the nation.

*Adapted from World Population: Status Report 1974 A Guide for the Concerned Citizen, prepared by the Population Council, 245 Park Ave., New York, New York 10017, Jan. 1974, p. 18.

(2). Population Growth is a Problem*

1. Population growth is a major crisis now facing mankind, perhaps the major crisis. Continued population growth endangers the environment and our living standards in many, many ways. The population growth must be halted or slowed down a lot even if harsh, tough measures must be taken.

2. Population growth makes other social and economic problems much worse. It makes development in the poor countries go much slower and it increases the environmental pollution and use of resources in the rich countries. Population growth can and should be stopped by changes in women's roles, living standards, education, health care, and so on. Population can and should also be stopped by controlling the births in a nation through the national family planning programs.

*Ibid.

Title: YES, NO, OR MAYBE*

Introduction: Many potential changes can affect one's opinion of population changes. In fact, many changes are suggested by various groups every day. Some suggest we farm the sea and grow more food. Some suggest we concentrate on slowing the birth rate. There are pros and cons for every suggested change. In this activity, students document and/or recognize the pros and cons for proposed changes relating to population changes. In addition, the students discuss their preferences and opinions about the likelihood and desirability of these changes.

Objectives:

To document positive and negative implications of proposed changes that could affect population growth or food production.

To recognize and verbalize personal preferences and evaluations concerning population-related predictions and possibilities.

Time: One or two hours for research
One class period for discussion

Materials: Duplicate copies of the handout "Yes, No, or Maybe."

Procedure:

1. Hand out the sheet titled "Yes, No, or Maybe," one copy for each student. Tell the group to complete the worksheet based on the knowledge they have. (Time can also be given for research if that is needed.)
2. Go over the questions on the worksheet with the students.

YES, NO, OR MAYBE

Below are suggested future approaches and changes related to population and food issues.

Give an argument for each suggestion and an argument against each suggestion.

- a. farming the sea
- b. irrigation of arid (dry) lands with desalted sea water
- c. sending excess people to colonize other planets
- d. voluntary family planning
- e. addition of contraceptives to drinking water
- f. increased use of fertilizers and pesticides
- g. clearing and farming tropical rain forests
- h. abortion on demand
- i. taking care of our own country first; letting the rest of the world go its own way

Questions:

- 1) Which suggestion would you like to see occur first? How do you overcome the negative arguments suggested?
- 2) Which of the suggestions is most likely to occur? Explain.
- 3) Overall, which suggestions do you feel have more plus factors than minus factors? Vice versa?

Title: BOOMSVILLE (Activity requires obtaining film from your NAFSA, address below)

Introduction: It can be helpful to look at population growth and its effects on a long-term basis, but the concepts involved are often difficult to grasp. One means that is effective is some kind of visual presentation. The film Boomsville provides that image in a graphic concise manner using animated descriptions. The purpose of this film is to show the advancement of urbanization and related technology in American history from the discovery of the New World to the present. This sequence provides the students with a useful overview of the growth process as it occurred in this country and provides a springboard for discussion about population, urbanization, and environment.

The film most clearly portrays the concept of change as it has affected the course of American history.

Objectives:

To suggest some turning points in American history related to protection of the environment.

To discuss the impact of urbanization on American development.

To explain how migration is a significant factor in population questions.

Time: 50 minutes

Materials: Film--Boomsville (16 minutes, color) from National Association for Foreign Student Affairs, 1860 19th Street, NW, Washington, D.C. 20009, 202-462-4811; or distributors listed on next page.

Procedure:

1. (20 minutes.) Introduce the film. Explain briefly that the film is one depiction of American history with heavy emphasis on factors related to population. Ask the group to specifically watch for:
(a) possible effects of each stage on the environment, (b) factors that may describe the urbanization process, (c) direction of population shifts. Show the film.
2. (30 minutes.) After the film has been shown, use the following questions for discussion:
 - a. What immediate effects on the environment were obvious when the settlers came? (clearing of forests, etc.)
 - b. What other impact on the environment came later? (pollution by transportation, industry; concentration of population in limited areas)
 - c. What seemed to have drawn people to the urban centers? (availability of products, jobs; national needs such as industrial production during wars)
 - d. What generalizations can be made about population shifts in our history? ("safety valve"--move to relatively uninhabited areas; trend toward the cities) What about these options in the future?
 - e. What general conclusions may be drawn from our experience as a nation? (constant conflict between man and the environment; populations will urbanize as they industrialize; life has a tendency to become both more uniform, e.g., suburban housing, and more diverse, e.g., the division of labor.

BEST COPY AVAILABLE

Boomsville should also be available for rental from the film library at your state university. If it is not, contact one of the following distributors:

ACI Films, Inc.
35 W. 45th St.
New York, New York 10036

Films Incorporated
1144 Wilmette Ave.
Wilmette, Illinois 60091
(abb. FI)

Audio Visual Center
Indiana University
Bloomington, Indiana 47401
(abb. IU)

General Motors Corporation
General Motors Building
Detroit, Michigan 48202

Arthur Barr Productions, Inc.
P.O. Box 7-C
Pasadena, California 91104

The Graphic Curriculum
P.O. Box 565
Lenox Hill Station
New York, New York 10021
(abb. GC)

BFA Educational Media
2211 Michigan Ave.
Santa Monica, California 90404

International Film Foundation, Inc.
475 Fifth Ave.
New York, New York 10017
(abb. IFF)

Carousel Films, Inc.
1501 Broadway
New York, New York 10036

Learning Corporation of America
711 Fifth Avenue
New York, New York 10022
(abb. LCA)

CCM Films, Inc.
34 MacQuesten Parkway South
Mount Vernon, N.Y. 10550

McGraw-Hill Films
1221 Avenue of the Americas
New York, New York 10030
(abb. McGH)

Colonial Williamsburg
Williamsburg, Virginia 23185
(abb. CW)

Coronet Instructional Films
65 East South Water St.
Chicago, Illinois 60601

Time-Life Films
43 West 18th Street
New York, New York 10011

Encyclopaedia Britannica
Educational Corporation
425 North Michigan Ave.
Chicago, Illinois 60611
(abb. EBE)

University of California
Extension Media Center
Berkeley, California 94720
(abb. U of C)

University of Southern California
Film Distribution Service
University Park
Los Angeles, California 90007
(abb. U of SC)

Title: PLANET MANAGEMENT GAME, SIMULATION (Activity requires obtaining game from Houghton-Mifflin, address below)

Introduction: One of the difficulties with teaching about food, population, and environment is that too often these problems are dealt with singly, or, at best, in pairs. Rarely are the three problems examined simultaneously, and almost never are they considered together as an integral part of a larger whole. As the name implies, the Planet Management Game provides a vehicle by which a group can attempt to integrate the total system. Obviously, of necessity simulations must be limited in scope. Even so, the interrelationships of food, population, and environment with other societal factors are clearly drawn in this exercise. For this reason, this simulation becomes an ideal culminating activity to any study of the above three issues or combinations of these issues, because it helps to put them in their proper perspectives.

Interdependence is the whole thrust of this simulation as the students attempt to integrate a variety of factors to produce the best standard of living.

Briefly, in teams of approximately five, individuals play the roles of managers of Clarion, an earth-like planet with problems of overpopulation, pollution, food shortages, and insufficient income. The game begins in the year 2000 and runs for 50 Clarion years, or ten rounds of play. The manager's goal is to improve the planet's living conditions by selecting specific projects from a large list of projects provided, and spending a limited amount on each. The projects include increasing imports of fertilizer and pesticides, conducting research to cure the Clarion disease, Holobinkitis, and building mile-high apartment buildings with surrounding parks. A "cardboard computer" tells each team how well it has done in each round to improve the planet's situation in the four problem areas. Once the game is complete, teams compare their results and attempt to define which team achieved the "best" results.

Objectives:

To suggest several ways in which food, population, and environment are interrelated.

To define what is meant by the "quality of life."

To identify several value questions that arise when choices about development are made.

To understand that to improve the quality of life one cannot limit progress to one area, but must move ahead in several areas simultaneously.

Time: Three hours

Materials: One Planet Management Game kit, Houghton-Mifflin Co., 551 Fifth Avenue, New York, New York 10017, 212-867-8050. Rules and Planetary Status Ledgers must be reproduced from the kit so that there is at least one set per team. A set of evaluation questions (see attached) should be prepared for each group.

Procedure:

1. (30 minutes.) Introduce the game as an opportunity to find out what would happen if we could really control all important decisions regarding the quality of life. Would we do better or worse than those who are now making decisions? Follow these general comments with the specific rules of the game. Reading the rules from the book is probably the most systematic way to present the game. Answer questions after the rules have been explained.
2. (1½ hours.) Play the game. Participants may be a little unsure of themselves at first. Emphasize that the game will become clearer after the first round or two. Let each team move at its own pace. If one team gets more than a couple of rounds behind everyone else, give that team a time limit so that it will not fall further behind. Groups that finish early should be given a copy of the evaluation questions so that they can analyze their results while they are waiting for the other groups to finish.
3. Debriefing: All students should have an opportunity to respond to the evaluation questions (on next page) in their groups before a general discussion begins. The last groups to finish should be given only about five minutes to survey briefly their possible responses. They can develop their responses more fully in the course of discussion.
4. While the groups are answering the evaluation questions, and after all are done with the game, post the results of each team on the board. Then, begin the discussion using the following questions as a guide:
 - a. Which team appears to have been the most successful? Use the justifications from the evaluation questions in the answer. What criteria determines "most successful?"
 - b. What dilemmas were confronted in managing the planet? What did your responses say about your values as far as the quality of life was concerned? For example, did a group maintain more desirable population levels by refusing any action that would curb holo-binkitis?
 - c. Is it sufficient to compare the population, food, income, and environment rations to determine the best management?
 - d. What culminative effects became apparent in later rounds? What does this tell you about where the earth currently is?
 - e. What would become significant steps that could be taken on earth to achieve the group's consensus of the "best" results?

Further Suggestions:

Based on the above discussion, one or two teams may want to replay the game to see if they can make the necessary adjustments to improve their living standards. Evaluate the adjustments they made.

EVALUATION QUESTIONS

1. How have living standards on Clarion improved as the result of your management? How have they deteriorated?
2. What were significant projects in determining your outcomes? Do you approve of the steps you took to achieve your goals?
3. Could the same results have been accomplished with less money?
4. Would you now prefer to live here rather than on earth? Why or why not?
5. Do you have any moral concerns about present conditions on Clarion?
6. If your present trend continues, what will Clarion be like in another 50 years?

LIST OF AVAILABLE POPULATION/FOOD MATERIALS

Population Resources--Resource and Teaching Units

- Options - A Study Guide to Population and the American Future, Population Reference Bureau, Washington, D.C.
- Focusing on Global Poverty and Development: A Resource Book for Educators, Jayne C. Millar, Overseas Development Council, ODC, Washington, D.C.
- Population Education Resources, Zero Population Growth.
- Equilibrium, Zero Population Growth.
- Population Inquiries Teaching Unit, grades 9-12, Social Studies Development Center, Indiana University.
- The People Packet, National Association for Foreign Student Affairs.
- Teaching About Population: A Guide to Discussion, Study, and Resources, INTERCOM, Center for Global Perspectives, New York.
- Environment and Population: A Sourcebook for Teachers, Kathryn Horsley, National Education Association, 1972.
- Population Bulletin series, World Population Data Sheet, Population Profile series; Population Reference Bureau.
- Teaching About Population, Secondary School Teachers Kit, U.S. Committee for UNICEF.
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ORGANIZATIONS WITH INFORMATION
ON FOOD AND POPULATION

African-American Institute, 832 United Nations Plaza, New York, New York 10017

Agency for International Development, Office of Public Affairs, Department
of State, Washington, D. C. 20523

American Freedom from Hunger Foundation, 1717 H Street, N. W.,
Washington, D. C. 20006

American Universities Fieldstaff, 3 Lebanon Street, Hanover, New
Hampshire 03755

Center for Teaching International Relations, Graduate School of
International Studies, University of Denver, Denver, Colorado 80210

Center for War/Peace Studies, 218 East 18th Street, New York, New York 10003

Food and Agriculture Organizations (FAO), Freedom from Hunger/Action for
Development, Via delle Terme di Caracalla, Rome 00100, Italy

Foreign Policy Association, 345 East 46th Street, New York, New York 10017

Management Institute for National Development (MIND), 230 Park Avenue,
New York, New York 10017

National Council for the Social Studies, 1201 16th Street, N. W.,
Washington, D. C. 20006

National Association for Foreign Student Affairs, 1860 19th Street, N.W.,
Washington, D. C. 20009

Overseas Development Council, 1717 Massachusetts Avenue, N. W.,
Washington, D. C. 20036

Population Council, 245 Park Avenue, New York, New York 10017

Population Crisis Committee, 1730 K Street, N. W., Room 713, Washington,
D. C. 20006

Population Reference Bureau, 1755 Massachusetts Avenue, N. W.,
Washington, D. C. 20036

United Nations Fund for Population Activities, 485 Lexington Avenue,
New York, New York 10017

U.S. Catholic Conference, Campaign for Human Development, 1312 Massachusetts
Avenue, N. W., Washington, D. C. 20005

U.S. Committee for UNICEF, 331 East 38th Street, New York, New York 10016

World Bank Publications, 1818 H Street, N. W., Washington, D. C. 20433

Zero Population Growth, 1346 Connecticut Avenue, N. W., Washington, D. C. 20036

EVALUATION QUESTIONNAIRE

The Center for Teaching International Relations is interested in receiving your comments regarding Teaching Population Issues and Topics. Please fill out this questionnaire and return it to the address below.

1. Which of the activities did you find most useful, and why?

2. Which of the activities did you find least useful, and why?

3. What suggestions do you have for improving this unit?

If you have materials on population issues and topics that you or your school district have developed and wish us to look over and consider for publication, feel free to send us copies.

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